

Still Alive With Sir Clive!

ZXir QLive Alive!

The Timex/Sinclair North American User Groups Newsletter

Volume 9 No. 2

Summer '99

Chairman

Donald S. Lambert

Auburn, IN

MEMORY MAP

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Sir Cyber Sinclair



The Editor

ZXir QLive Alive! ©

ESTABLISHED 1991 THE TIMEX/SINCLAIR NORTH AMERICAN USER GROUPS NEWSLETTER

T/SNUG Information

We wish to support the following platforms: ZX-5000, T5-0000, Spectrum, T5-2000, 286 and G3. If you have any questions about any of these fine Sinclair's, contact the

Chairman

Chief Moderator

Donald S. Lambert (JFK40)

Vice-Chairmen

Tape & Hard Disk Library

D. G. Smith

415 Stone St.

Johnstown, PA 15906

814 535-0998

Z88 Library

Dave Deane (J447002)

1123 Timber View Dr

Mechanicsburg, PA 17053-0146

717 732-4074

QL Hacker's Journal

Timothy Swanson

34723 Lexington St

Freemont, CA 94530

teswanson@pacbell.com

T5-2000

Red Humphreys (JFK40)

19504 Collins St.

Delta, BC V4C 1T6 Canada

604 503-2819

QL PD Library

John Donalson (JFK40)

835 Foxwood Cir

Orem, UT 84034-1031

800 232-8147

AERCO & Z80 Emulator

Kerr Watson

40034 Amberly Dr

Mt. Clemens, MI 48038

BBS - - - GATOR'S - - -

Bob Swager (JFK40)

613 Parkside Cir

Streamwood, IL 60107-1640

630 837-3657 mod 843 576-2008

Any of the above can also be reached by E-Mail through the Club BBS 847 632-5558

ZXir QLive Alive!

Is the newsletter of T/SNUG, the Times/Sinclair North American User Groups, providing news and software support to the T/S community in a **VOLUME** of four newsletters per year, beginning with the Spring (March) issue.

T/SNUG's main goal is to preserve and encourage the use of Sinclair computers by providing an open forum for the exchange of knowledge, building and maintaining of software libraries. Providing vendors, repair service and members with free ad space.

It is the user groups and individual subscribers, rather than the vendor, that provide the necessary support for this newsletter. Vendors and developers receive this newsletter free of charge, though contribution from vendors and user groups is gratefully accepted. Please support our vendors and service providers whenever possible.

If you have a problem or you have solved a problem, please share it with the rest of us. No problem will be considered unimportant.

Editor/Treasurer Publisher

Bob Kay PD Library

You can keep T/SNUG alive by an annual contribution of \$12 for one VOLUME made payable to: Abert Kahala. Send check to -

ABERT KAHALA

3243 S FLAT ROCK CT

SIERRA VISTA AZ 85635-0874

520 378-3424

Back copies are available for \$1.00 each postpaid.

Trea\$ury Note\$

As of June 3, 1993, we have a balance of \$892.54

Article - Contributions

Send in your articles by tape or disk and your inputs to -

DONALD S. LAMBERT

1301 KIELINGER PL

ALBUQUERQUE 48100-3010

Phone 319 935-1372

By hardcopy, modem or mail (3-13 G) to:

Abert Kahala

E-mail: AKahala@compuserve.com

~~~~~

Jack Fontenight

Andrew Danahy

Jake Fenske

Terry Jones

## GATOR'S

Whisper Pair

To better inform the Sinclair Community, four 34-hour a day BBS's are now provided to serve you. You are encouraged to exchange mail and use the file sections of these boards. Bulletin and ads are available to all.

Q-Bus BBS 310 284-0878

Uxux, Michigan

SCC Server Ross Morano

http://members.tripod.com/bd/pam/

SCM BBS 530 443-0348

Tucson, Arizona

Club BBS 847 632-5558

Adrianes Heights, Illinois

If you know the Internet E-mail address of a Sinclair user, but do not have access to Internet, simply address your E-Mail to GATOR: leader on the 34-hour Club BBS and include the name and E-Mail address of the user you wish to reach. Then check the Club BBS from time to time if you expect a reply.

We encourage you to exchange mail and contribute to the UPLINKS section. Call and register using your first, last name and phone number along with a password you won't forget. *Wish it Down!* Do not try to do anything else at this time.

When you call-in at the next time, you will have Level 3 security and be able to register full new providers. The BBS has smaller sections called conferences: Series "1" for the "Join a Conference" Series "THIRN" to get into the Sinclair Section. The mail you then read will only be from other T/S users. Use extension ART for articles, ADS for ads and NEWS for news when UPLINK/Down.

For help, contact the SYSGR, Bob Swager, by leaving a message, mail, E-Mail or phone.

CEING108@gmail.com.com

# Input/Output

+ *Alfred Kubala*

I was at Rod's yesterday and picked up quite a lot of items. He indicated that there was some sort of problem with the Cleveland stuff and sent a lot of it along with me. I haven't had time to inventory anything and, hopefully, can get that done before the Summer issue of QJA! Some of the things I remember from loading are books, books, and more books, 100's if TS1000 tapes (Times & Software mostly), 2 monitors (green screens), a few boxed TS1000's, a few 16K RAM Packs, 3 boxes of magazines & newsletters and 15 or 20 disk drives and more. I took one suitcase over because of time and brought back about 75 cubic feet of full boxes. He will call me after the rest of the 2000 items are sent and I will pick up anything that is still there, plus the schematics and files he has.

I told Rod that I would ship anything to whoever wanted it for the cost of shipping. He suggested that I add 10% to cover cost of materials involved in the shipping (tape, packaging, etc.). That sounds reasonable.

Anyway, I thought I would let you know that I have picked up some of the items and they are available now. If someone wants to email me with a request, I will look for that specifically until I get everything cataloged. I can be contacted by phone (241-289-1151), FAX (67325 Paycom Rd., Reed, OR 97768) or email (Take care,

Jack (Jhonbright) [jhonbright@outlook.com](mailto:jhonbright@outlook.com)).

From: Michael Hendright

I am potentially interested in signing my son up for the TS2000. He is a 10 year old who thinks Time/Science rules. I was told that if I emailed you and asked, that you would send me a free copy of the newsletter "32K QLive Alive" for evaluation to see the kind of information that it contains. Is this true? And could you give me more information on the User Group like dues, etc? Thanks.

Justin Hendright  
8324 NE 12th Court  
Kirkland, WA 98034

[mahendh@NORTHWEST.com](mailto:mahendh@NORTHWEST.com)

Alfred,

Yes, NoDaddy needs a move than Rod. Really never mentioned the 2000 as was in the Diary often and for Alvin frequently but did not like Rod nor spreadsheet/Wordage. My Search-Carousa dedicated word processor is only 800 Kb better. I actually own all the best books on 200 and additional programs on EPR04, etc but too many superior devices at hand. Still, I did run the webpage in the UK and still again. My problem with the 200 is that the highest server from TS/Spec user groups and newsletters had passed by the time the 200 came out and like a child, I always need convincing because have legions of bullies. Thank you kindly for positive words about my programming. The skill becomes very idiosyncratic within short time. I always LIST prog and are surrounded how much we all differ in problem-solutions and even mini-modules vs use for learning the baroque beginnings. Thank you especially for sending me frequently out of 32K QLive Alive!

course, it is motivating me to learn how. The time is most take you to finish all of us! All that + newsletter

Harriet (Joni) Keady

Dear Alfred

In regards to Al Peng's letter on the various value of a TS2000, he says, "Internet access is the 'hot' area of computing... maybe you should write something for QJA?" So, don't you think now would be a good time to run that article I last submitted, on surfing the net via 2000?

KEEP ON TIMEX'n

David E. Laisow aynp, 501.885 (6520-812-0288  
320-812-3922 (voice) [edlaisow@stanmar.com](mailto:edlaisow@stanmar.com) (jroed)  
Alfred,

You guys did well on that project, up to give preference to TS2000, my favorite TS computer though I also own the 1000 and 200. I also was dubious about how there could be \$1000 worth of shipping cost there, but it has all worked out fine with less weight also reducing materials.

About the computer (color monitor—that's the kind I have—Magnavox—is has required servicing since when it was only slightly over a year old for my adjusting skew out of visibility, came back to the factory under warranty, and once repaired by Radio Shack's central repair facility in Fort Worth. It is about that, I feel, and I must say that Radio Shack's hands did a marvelous job for \$100 about 4 years ago—yes, it is now 10 years old. What to do now? Can we still use those TS2000's off of TVs or has the technology been changed radically since 1987? Should you believe I have a 17" RCA TV of 15 yr ago that will also run my 2000's? You might suggest to folks who find old computers or 8088 monitors that a big colored TV from 1980s gives a good enough picture with some difficulty reading fine print on TASWORD being the only drawback. Thanks for your work to keep our "stuff" out of landfill.

Harriet J Keady

Hi Alfred,

Oh, yeah. I forgot... I also have about 11 cases of TS2000 Printer paper. Need any?

I mentioned and there is only 8 cases of paper. 2 of them are for the TI 904 Silent Printer (same paper as the 2000 but twice as long. Rod cut them in half for his customers. I may post them in the TI newsgroup to see if any TI folks want them.

I'm going to find a Maximilian Tally-Sprint 80 or a Legend 880. I understood that if Times had stayed in business, they would have been the TS2000. So I decided to make my own 2000. Found one of the same printers, spray paint it silver, and take a logo. I suppose other people have done it before me. Good luck on moving the stuff.

I've been formulating a plan. Once I get it finished I'll share it with you. One of the problems I can foresee is that I have a lot of TS stuff of my own and it would be hard to keep it separated from the stuff I got from Rod.

Did you ask Rod what happened to the Larkens he had on the list he sent me?

No, I didn't think of it. I was too busy packing and loading boxes. I spent 4 hours at the place, then had a 4 1/2 hour drive home. I'll give him a call one of these days and ask.

The Larkem I bought didn't work, both boards were out on it and the 2068 they were hooked up to was bad too. I'm wondering if the guy had a power supply or something. I hope not because there were a few other things hooked up to it that I haven't had a chance to check out yet. I saw all the Larkem boards and the 2068 to Computer Classics last week for cashed. I can't wait until I get them back!! (I saw the 4040 Disk too, just in case there was something wrong with it.)

I was reading an article in Time Dragon, Vol. 1, no. 1 about the plans that Times exec had for the 2068. Too bad they didn't get the Ben Expansion Unit out before they quit. That would have been something, if everything in the article was really in it. I wonder if Times had a prototype of it, or schematics? Take care, Jack

RE Alad,

I talked to Rod this morning about the Larkem. All he has is the disk controller board, but no LK008 cart. He said that it was a mistake on his list and that he had a couple of other mistakes, too. He also said he had talked to Bob E. and given him a list of items that he didn't have that were on the list. Take care, Jack

Dear Alad,

There are at least two sources in Tucson of used computer monitors for the T2068. Two dollars gets the monochrome Magnavox, whereas Billy gets you a color monitor for the Apple II. The market is flooded by those monitors right now, and they both work fine with my 2068s. David E. Lammey, owner.

Hi Alad,

BTW, I posted the 2 cases of TI printer paper on ebay and got a take! Same deal as the Times stuff...the cost of shipping, plus 10%. I still have 7+ cases of 2040 paper so the supply should last for a while. Take care, Jack Bonwright

RE Alad,

- Just wanted to take a moment to publicly thank:
- Fred Hens for getting me a manual for the Memotech Centronics II
  - Peter Lubert-Adelt who was going to make copies of his manual and send it to me from Germany.
  - Fred Stern for all the help he has given me getting my Z001 and disk interface going
  - Don Lambert for his letter and info on the Larkem interface
  - Rod Gansen for getting me re-connected to the TS community
  - And you my friend, for sending me the copy of the OS-04 manual. A BIG Thank!

Jack Bonwright

Dear Alad,

Fine. Thank You for the 3 Email "banners". AND a look into the future. Peter Lubert-Adelt (Germany) has requested the Memotech II, some books, and magazines

that you finally adv in your newsletter ...to TI about a revised list, of what I still have, shortly. Sincerely Yours, Fred Hens

Re: Sunset Electronics

It's too bad. I was looking through one of their 1985 catalogs - they had some interesting items and I was hoping they might still have some. Before taking them off the listing maybe we should ask if anyone has had dealings with them recently, it could be that they just moved to a new location. Does anyone know the name(s) of the owner(s)? I would be happy to try to track them down.

Jack

Dear Alad,

Thanks for the email. Have to be a bit short because I am doing a makeover to make people for the upcoming Endtover QL show, and it has to be ready by the evening.

> Al Peng informed me about your interest in sending ads to ZQA/ You

> You can send ads and/or articles. Ads are for free and articles are welcomed. I do love and old ad for QL. Today that you mailed me, but a new one is welcomed (okay, will do)

> You can attach almost anything to your email. GIF, JPG, PCX or any other graphics format. Either UUE or MIME is accepted by CompuServe.

Fine, I guess, Netscape attaches with MIME

Karl rejoins

Jochem Mera Software  
Im stilles Wäldel 12 - D-47149  
Duisburg - Germany  
email: jochemmera@t-1.com

RE Alad,

I (along with Paul Hodgson, Keith Watson, possibly others) have recently been approached by the authors of Wangware to help them with technical info and test software for their proposed T2068 emulator, which they hope to include in their v2.5 release slated for June/July. Most of the technical questions have been answered except:

1. How many horizontal scan lines in the top and bottom borders?
2. How many V states in the left and right borders?

They are also looking for software they can test on their emulator, especially stuff that uses the 2068's unique features. They are aware that some software is still being sold here and as a result have promised not to release any of it to the internet as a whole - they will just use it for testing their emulator.

I and a few others have already test them a number of things. Not 2 on cart, Spectrums emulator on test, MSCRIPT, Techdraw II, upload2068, real decompressor, 3d dischiase, cyber zone, 2068 name Byte Power, burn 04, OS 04 on cart. They already have the handful of games & utils available on the internet that have been converted to run on the 2068 (and see it as cheap and joyricks).

My own 2068-specific software collection is a little sparse. Do you know of anyone who might be able to help? Keep in mind that the first release will not include Larkem or IL000 emulators. Thanks again Alad.

One of your loyal ZQA readers,

Alvin

[mlawford@comcast.net](mailto:mlawford@comcast.net)

*I will try to answer your questions*

1. The 2068 Mode 1 has 192x256 lines, 162x512 in Mode 2 - NTSC compatible. I would believe that the over scan lines are the same as in NTSC.

2. I do not understand what is meant by the "T" state. Again, the 2068 is fully compatible with the NTSC whether you use its VIDEO or its RGB outputs. There are 4 Display Modes, but Display Mode 1 is generally used for most programs.

Good luck and let me know if I can be of further help.  
*Abel*

*I forgot to mention that unlike PCs, the TS2068 displays memory as bit-mapped.*

*Heidi Abel,*

*It seems that I fell in the bit-mapped trap — We are dealing with software and not hardware. It should work just fine.*  
*Abel*

They are quite concerned about the details as they would like to release a computer that's as close to the original as possible.

I'll try to expand on what they are looking for. NTSC has 262 lines on the screen. The 2068 drives a 14.112MHz clock by 896 to generate the horizontal sweep freq. (13.75MHz), which means the 2068 has a frame rate of 15.75x262=50.1145Hz (this is also used to generate an interrupt).

In normal 256x192 mode, within the horizontal scan line, pixels are shifted out serially at a rate of 14.112MHzx2=7.056MHz. With a 356 pixel horizontal resolution, each 256 pixel line is written out in 1/7.056x256=16.61ns, not including the border.

The 2068's clock is derived from the 14.112MHz clock by dividing by 4. This means that each horizontal scan line takes 166.4=234 T states to draw, where 1T state = time for one 280 clock cycle.

Now, the 2068 screen has 192 lines, but NTSC has 262 line total. That leaves 70 lines at the top and bottom borders. The authors want to know how many lines are in the top border.

Each horizontal line has 256 pixels and a left & right border. They know the whole thing takes 224T states to draw, but they would like to know how wide the left border is, probably in T states (the time delay before the 256 pixel line is drawn).

The top and bottom borders and the left and right borders are probably equal in size, in which case it's easy to answer your questions. But guessing isn't good enough.

The main concern for them is that it is possible to run display modes on the 2068 so that parts of the screen are in 312x192 mode, other parts in 256x192 and still others in 256x192 in colour. Unless they got these numbers right, such emulated display could be a mess compared to the real thing.

I'm not too familiar with video or any standard as my connection to the above is much appreciated.

I have also given them a brief description of the Larion RAMdisk. I don't own one of those, so it's a lot of guesswork on my part. Could you let me know if I have it right? Basically I told them that Larion DCS maps 32k

blocks into the top 32k of the DCS bank. To change which 32k block of the 256k available is mapped, you have to do so via write to Larion's RAMdisk hardware.

*Thanks Abel,*

*Alan*

PS. It looks like the emulation is working well - they tested all the TS2068 traps I sent and they all seem to work.  
*Hi Abel,*

First, thanks for the Harner! Some of that was GREAT.

Now the bad news. I also sent a SASSE to TED Computer Products and John McMichael. TEL's came back today marked "Accepted, Not Known". I tried the number listed for them in DQA, tonight and got no answer. I will try again tomorrow during business hours. I'll let you know what I find out.

John McMichael sent a reply that said "Unfortunately, I don't have a whole lot of that kind of stuff left. Several years ago I made the decision to switch to IBM computers and sold quite a bit of my Tricon computer stuff."

Looks like our resources are dwindling that. I also sent SASSEs to Jack Doherty, Bill Russell and Keith Weston. Bill Russell responded and said he had a few items still available. So far no response from the others.

If you can find out the names of the owners for TEL and Sunset Electronics, I will try to track them down.

*Jack*

*Abel,*

Dave Bennett gave me web address for emulation for Mac so I downloaded 3 Spectrum-to-Mac emulators — guess will not need all in emulation. Thanks to

The best place I have found for Macintosh emulation software is at the following web site:

<http://www.emulation.net/index.html>

Thanks to Dave Bennett

*Harner (last) Early*

To: GATS, LIST and DDr Olive Allen

I writing to say that I have recently added to my homepage a high resolution schematic of the Sinclair +Star3 ZX Spectrum. The schematic is divided in two halves and each half is 4096 by 5000. I've retyped all the hard to read text, filled in missing tracks and cleaned up the circuit connections, it took me about two months to do it all.

The scan is in monochrome and in the TIFF format.

Amstrad (the company that bought out Sinclair's position on the schematics) and technical manual is that it can be distributed, just as the ROM's are. Free for use, but Amstrad keeps all rights. Enjoy the schematics and the technical manual. My homepage is

<http://www.attantic.net/~adamsby/sinclair.html>

for andy (adamby)

[adamby@attantic.net](mailto:adamby@attantic.net)

*Hi Abel*

I got your reply about but inadvertently deleted it. I was smart enough to print it out, though.

I may try to find the TRS and Sunset owners anyway. Even if they have very little it might be good to grab it, if possible, for the future. Hopefully, wherever they had been ended up in a dumpster. I did call TEL again today, but got

no answer at the listed number

Well, Rascal said there had been a few inquiries and that he should go through his boxes to see exactly what he had. So he he hasn't gotten back to me (we corresponded the end of February)

Say, when would you like the list of the items I have? I know the last EXA since it is June and am wondering how soon before the year you would like it. Telling us everything, you know. Any special format? I can do it in ASCII & Word 6.0 for me, maybe a couple of others. Do you want a disk or can I just attach it to an email?

Jack

Hi,

I am interested in finding out more information about this group. I have a MK 14, two EX60 machines, numerous EX61 and TS1908 machines, a couple TS1560 machines, several printers and at least one TS2055

John M. Franklin N4AAWRL

23 Piedmont Dr. Apt 201

Yorktown, VA 23693-4619

E-mail: [jmfranklin@comcast.net](mailto:jmfranklin@comcast.net)

Hello Albed, April 8, 1998

Just received this disk in today's mail and I tried to load the file to read it. One computer could not even read the directory. The other can read the directory but the file has an error in it. (Apparently the disk was x-rayed)

I am also enclosing a copy of the statement from UPS for the last shipment of boxes that went to Iowa. I hope to have another, maybe the last, shipment out in a week or two

By the way, there was a LaSalle chair UP and cartridge board here after all so it will go out in the next shipment to Iowa.

There is a balance of \$109.46 left of the shipping money from TSMUG. I will ship boxes until that runs out or until I run out of boxes. If there is any part of the above amount left, I will return it to you

Whatever is left after I have shipped as many boxes to Iowa that the money will cover will be given to Jack Postwright in Iowa. He will eventually get an inventory completed and will send you a copy of such inventory list to be printed in the newsletter. I am just happy that the TS items are not being used as landfill. I cannot believe how much room I have now that this stuff is being cleared out

I will look forward to reading what I assume was the EWOUT column from the current issue of the newsletter if you need another copy. Take Care,

Rod Conway

Thanks Albed

I sent you a reply email a week or so ago that came back today. It was the one where you didn't understand what I meant by the term "cart". I had shortened cartridges to carts. I have gotten a couple of inquiries on obtaining 1600 cartridges. I suppose those are history by now, unless there are some in Rod's stuff

Jack

Please send me info on your Times Square Club and newsletter. Thanks

Terry Jones

[trjones@att.net](mailto:trjones@att.net)

[terryjones@times-square.com](mailto:terryjones@times-square.com)

From: George-CINQUE Bob on Thu, Apr 16, 1998 10:13 AM Subject: RE: RMG

I said he received stuff from RGD we asked not to be shipped. I said for the most part Rod did ship what was stated would be shipped, right?

-----GREG-----

Hi Albed,

I will pick up the final items from Rod on Saturday the 25th. That gives me about 20 days to finish the list for you.

Jack

## Vacuum Tubes

One of the "mysteries of the universe" that I do NOT understand is how a vacuum tube functions - if you can explain THAT, a lot of gaps in my understanding of electronics will probably be filled in.

Al Peng

I will try to put it in plain English



The biggest vacuum tube you have in your house is the TV picture tube

It is funnel shaped, you must have seen one of course. It is highly evacuated to create a vacuum to facilitate electron motion inside.

At the narrow end inside, there is a metal plate. Behind this plate there is an electric heater that heats this plate to a very high temperature thus liberating electrons.

The negatively charged (-) heated plate liberates electrons, these electrons are magnetically handled into a very narrow ray (beam). The electron beam is attracted to the front of the picture tube (the large end) that is positively (+) charged to about 40,000 volts and coated with phosphors on the inside that glow when this beam hits that surface producing a piece of the picture.

Positive and negative charges do attract each other like the north and south magnet poles >... what function does a vacuum tube serve as a circuit... how does it modify what is happening?

The electron tube is used to amplify an alternating current signal

It can also rectify an alternating current into direct current

It can also modify impedance

It can work as a switch.

It can oscillate (generate a signal) etc. ...

In this day of solid state there are still electron tubes used where solid state can not handle the power such as magnetrons for RADAR and for your microwave oven.

I will describe amplification

An electron tube contains an electron source, the heated metal plate called CATHODE. This cathode emits electrons that travel to another metal plate called the PLATE which is charged (+) between the two there is an element called GRID. An alternating signal is applied to the grid. As this signal alternates, the electron flow from the cathode to the plate increases or decreases accordingly. The resulting signal shows up at the plate nearly times the original

magnitude of the signal on the grid - amplified  
> as the case of a first generation computer, how did  
the vacuum tubes function in the circuit?

The tubes functioned as an ON and OFF switch  
devices for the binary 0 and 1.

>Why are more tubes (or, transistors) BETTER?

They are not better but rather more suited for a  
particular application. Alvin

## Videogame Collector!

I'm looking for cartridges for the TS 2048 (and  
perhaps the TS 1024, as well as the cartridge models for it),  
and was wondering if

- a) the RMC inventory has any and if it's available yet,
- b) I could put a want ad up even though I'm not a member  
or
- c) You know anyone selling the cartridges.

Russ Perry Jr  
2176 S. Torrey Dr #106  
Arlington Hts, IL 60006  
847-953-9739  
stepdash@hotmail.com

I saw each of your e-mails that you sent yesterday. Yes,  
Rob, except for those tapes of T/S tape software, like 13  
copies of Status & Capitals, then we'll probably ever need  
what we've moved so far is what we want. I agree, Alvin,  
now - at the end of this road - is not the time to get tired  
about what has been sent, since it is almost exactly what we  
want, we should be so lucky with our children. Jack, I see  
no reason to return the distance you have to drive for the A  
& J 2000, unless you're going that way anyway or you sense  
Rod wants to do it. If you keep it, it would be just more

money that we could use.  
Right? Alf So, even though I  
have printed the complete list of  
RMC stuff you provided, Rob,  
etc it will sit until after. As will  
the shipments, with the first in  
house basement office/operation  
computer room (when I absolutely  
thought that was all that was  
going) and the second in our  
backyard garage. A rough list of  
the second is 11 QL's (10 in  
their org. boxes status unknown  
and the 11th modified into a

Commodore/Pa 30 keyboard one retrofitted keyboard), 3  
cans of 48 each 2040 thermal paper in new condition, and a  
box of mostly T/S tape SW and "Rocky Horror Show",  
'American Football', 'Spooky', 'Gulag', 'Dancing Card  
Dancers', Stan Lee's stuff, 'Night Gypsy' and a bunch of  
copies of stuff like 'Trollia V', etc. More later. J

Brooks "13" - TS "10" - Charmed "16" - Windows "95"  
John T. (Jay) Shepard, III wrote :

> So lucky with our children. Jack, I see no reason to return  
the distance you have to drive for the A & J 2000, unless  
you're going that way anyway or you sense Rod wants to do  
it. If you keep it, it would be just more money that we  
could use. Right? Alf

I am going over to Rod's on the 25th to pick up the

rest of the items that won't be shipped. I don't need  
another A&J (I have 2 cars/men and 1 dress already). Not  
a problem to keep it here, though. You're right, it would  
save on shipping, and, I can send it from here if someone  
wants it.

Should I let Rod know, or will one of you?

Don't bother to tell Rod. Keep it and show it on  
page 1st.

Hi Alvin,

Just letting you know that I picked up the last of the  
stuff from Rod on Saturday. He still had one box or so to  
send to Iowa. The A&J 2000 will go to Iowa. Rod wanted  
that it should, so I took it with me on Saturday.  
Alvin, I will have a list to you soon of the stuff still in  
Oregon.

Alvin, Rod was going to send me an Amiga disk  
interface but sent it to Iowa. Hey, would you be kind enough  
to send one for me. Or should I go through Frank Davis?  
Rob, Rod gave me the Log/Disk disk and done. He said you  
made his promise!! Thanks.

Rod has sent one follow to me who has a corrupted  
Larkin file called "beds" or "beds". Trouble is I still  
haven't gotten my Larkin back from Dan, so can't help him  
yet.

Anyway, that's what's new in the south of the woods.  
Jack.

Message text written by INTERNET [swj@panasonic.net](mailto:swj@panasonic.net).

You would not believe the can of worms - ran all over  
Germany (in file list out of response) trying to get "ZX  
Leader" to load "Bridge" into Microgate (lost  
simulation) from my old Tandy Computer Cassette recorder.  
After being reminded mercilessly how bad my German is, I  
finally found the ZX Leader on  
US website. Download no  
problem and fine piece of  
programming!

But Ken Quarter Weight,  
author of ZX Leader and  
Microgate, said loading from  
above 12 year old tapes is not easy  
and the Tandy recorder does not  
adjust anything but volume. I  
have tried 3 or 4 times yet and  
cannot get a usable tape. So far  
all it has cost me is way more  
time than the original tape. Thanks

Old book T2300A will work. Advantages for anyone and I  
will try again on tape. The afternoon go to register for  
new economy line to internet. =

Harriet J. Kady

Hi Alvin,

>The literature I have shown that Times announced 18 2004  
cartridges. Do you know if they were all produced?

> Were these anymore produced by anyone else?

These were a fine made by others - like the  
Q204, Larkin - don't think of it of Pect at this time.  
They are hard to find now. But I maybe will send

>Well, I have Badger, Chubby, Status & Capitals, and  
Flight Simulator cartridges. They say Times. Similar as  
them. Rod says that these should also be Panasonic, Cause

## 1938 De Soto



1938 De Soto Sedan (1938-39) 7.0 L. Sedan

## Cochise Motor Co.

Jack

Seems to me if it went on your inventory list that would be the trick.

I saw Pateall Davis today. He is now aware that all is almost in place. He did not do very much business at our show, but we hope that he and Carol had a good visit and may stay at the INM. I feel that he may have only brags even so this time. Combsen, Harris, Kowalski, Pateall and I all attended.

---SATOR---

Hi Al,

I'm attaching a list of the items I picked up from Bud. It's pretty close to being complete, but you'll notice I have put the disk drives listed yet, and a couple of other things. I will keep working on it what I have. Mine, but probably won't be done by the 15th and wanted to send you something for ZQA? Take care,

Jack

TERMAX is merely the localized version of MacCom. The 3084 simply has not enough memory for all the neat capabilities we have given MacCom!

Hi, Al, this is GREAT. So, why don't you consider it for inclusion in ZQA? David

### Error Messages

The following are some Windows messages that are under consideration for the planned Windows 3000

- 1) Smash keyboard on keyboard to continue
- 2) Enter any 11-digit prime number to continue
- 3) Press any key to continue or any other key to quit.
- 4) Press any key except... no, No, NO, NO! THAT ONE!
- 5) Press Ctrl-Alt-Del now for QJ test.
- 6) Close your eyes and press escape three times
- 7) Bad command or file name? Go stand in the corner
- 8) This will and your Windows exists. Do you want to play another game?
- 9) Windows message "Error moving file! Format drive now? (Y/N)"
- 10) This is a message from God. Quitting the world. Please log off"
- 11) To "shut down" your system, type "WIN"
- 12) BREAKFAST SYS failed. Current post not responding.
- 13) CORVIN SYS missing... haven't my key holder and press any key
- 14) CONGRESS SYS corrupted... Re-boot Washington D.C? (Y/N)
- 15) File not found. Should I like it? (Y/N)
- 16) Bad or missing mouse. Speak the cat? (Y/N)
- 17) Runtime Error (D at 417A, DCP. Incomplete User
- 18) Error reading FAT record. Try the SKIDNY one? (Y/N)
- 19) Waffle (SMF) LPT1 not found. Use backup (FENCH & PAPER SYS)
- 20) User Error. Epsilon user
- 21) Windows Windows 1.0 - "Windows found. Remove it? (Y/N)"
- 22) Welcome to Microsoft's World - Your Mortgage is Paid Due
- 23) If you are an artist, you should know that Bill Gates

owns you and all your future creations. Doesn't it feel nice to have security?

- 24) Required Government Warning: After we got caught in outdoor with the hardware manufacturers for trying to needlessly fill your hard drives, the following message is now required as you save your files in Word

"Word has detected that you don't wish to save your text file as a floppy and space waiting. And format filled with potential viruses. Would you like to save your old corrupted ASCII file as a Word file anyway?"

- 25) Your hard drive has been scanned and all usable software files have been deleted. The patches are on the way.

To: SWAGER-CNO/ISS Bob  
From: alfred@juno.com@INTERNET on Fri, Jan 30, 1998  
Hi Bob,

Well, Bob. I don't know why this Bill McKelvey is, but I will say that he must be a glutton for punishment. But, I will say that I did produce the BEST monthly newsletter that the volunteers of the Mission ever saw using just a copy of WordPerfect, and a paper machine that had some 40 reduction capability. I used cut-and-paste to make graphics, including the banner.

There is no reason that he needs more than what he has... McKelvey's only limitation is his design capabilities and his patience with the speed (or, lack of) of the QL. E-Mail with the QL. That is only theoretical, but if McKelvey has an ISP, there is every probability that QMOSAC will suffice for sending and receiving e-mail. I should contact local ISPs and AOL (as an example) to see they can advise him about connecting non-PC & non-MAC platforms.

If he has the patience, he can modify the LISTING of QLUTter that was recently printed in ZQA to send and receive.

If someone tells me what needs to be done, I might be able to write the PROcedures for the program.

I also think you may want to re-send the message to someone at NISQUALLY.

AL

> From: BILL MCKELVEY Sent: 05-24-97 13:29  
To: BOB SWAGER  
Re: (U)DeadTip Publishing

>> My question is do you want to do the desktop publishing on the QL or the TIGER?

I want to be able to do the DTP on my new QL. I was using WordMaster (from Jack Doherty) as my company never knew I would like to be able to use something better on my QL. I heard something like Douglas? can do that?

I have Page Composer 3 (similar to PagePro) and Text?

How do I get in touch with Paul Hologram?

>> By the way, do you have an Internet EMAIL address?

I do not have an e-mail address as I only have Sinclair computers, and do not know any way to send or receive e-mail with them.

David:

I have two copies of the ZEUS documentation. It is a 22-page manual. The pages are about 5 x 7 inches, so the documentation is a bit shabby. But it is all there, nevertheless. ZEUS is a 2-40 assembler, sold by SoftSys.



Inc., and this copy says that it is for the Times/Weekend 2000. It's one of those things I could not bear to throw out (invested in 1972, by chance?)

Let me know if you want me to send you a copy of Zoro documentation. Tape also if you want.

George Chambers

Dear George

I have found a copy of ZTERMS-04 ZMOCISM fix by Robert L. Schenck, and it is straightforward. Bob Schenck assumes me, that this fix will also repair MacCom's problem.

So, we'll let you all know how it goes, but we can nevertheless use any instructions you know of on using ZRUS Assembler.

Yes, George, I have ZRUS on both tape and disk. HOTEL, too! It's just that I forgot how to use ZRUS, and I thought maybe instructions would at least HELP!

Mean, that MacCom is receiving CORRUPT files from the Apple, here. So, the SEND routine needs a little work.

David Lazarov

Hello Abed,

Thanks for sending the disk back again. I just finished "reading" the file and thought that I should set the record straight.

Somewhere, someone has the impression that I was so wanted to "move" from my present location (not w/ I moved here in 1982 and when my wife died I used her life insurance to pay off the house so I am not about to move. The reason for wanting to be rid of the TS inventory is multi-faceted:

1. I can no longer run a mail order business effectively with my rapidly fading vision and no one to help
2. The TS inventory is not a hot property at this stage and I know that it could only get worse
3. I needed the space for other purposes. My oldest daughter is living here and the inventory was being stored in what I want to use for my new office/library. Then my current office will become her room.
4. My new business "old time radio" programming for a local radio station, has forced me to find a place to store several thousand old radio shows on cassettes, reel-to-reel tapes as well as video tape. This, along with my office will be located in the former storage room that has now been cleared of TS inventory.

I have, at this time, very little TS inventory left at this location. I have made 5 shipments to Mr. Shapard in Iowa, totaling 354 pounds. I have had Jack Hawthright pick up one van load of items, probably more than 600 pounds or so. He is due to pick up a second load (maybe another 200 pounds or so) this weekend. I also sent one shipment of 65 pounds to Mr. Gillette.

I was amazed to find out when I started the shipping that UPS had just raised all of their rates and no longer charged a "pick up" fee. I did a little figuring and came to the conclusion that the current rates are about \$2.02 per pound to Iowa.

At this point, I have a few more items to ship to Iowa and have \$60.00 left of the money sent to me by Abed. I will ship the remaining items and then will hold the balance until June, by which time I will have moved my office and will be absolutely sure that I do not have anything left of

interest to ship. On June 15, 1990, I will send a refund check to you for TORMO.

I want to thank all of those who made it possible for these items to find a place where they can be dispersed to those who may want a use for them. I sure did not relish the thought that they would wind up in the dump.

I will be giving Jack Hawthright a LOT of printed materials. He will have many schematics, manuals, user guides, magazines, books, and other documents that I have no further use for. He will get a lot of old copy from virtually all of the early vendors involved in the TS line. He says that he hopes to make all of this material available to any who want it. He even hopes to post a lot of it on the Internet at some future date. I wish him luck.

Remember, I will still make myself available as a TS resource if I am needed.

Thanks again Abed and Bob as well as all who contributed to the "RMG" project.

Sincerely,

Rad Green

On Wed, May 13, 1990, Shavell@quest.net wrote:

This will be the final request in those who do not feel it is too far to go to attend a very unique show for QL/COGS/TASQ users. May 22nd of 1990, please try to be there. Radford, PA, USA at the Carriage House restaurant.

Frank Davis

FWD Computing

Shavell@quest.net

Show Co-ordinator

Abed,

I'm working on another issue, but I don't have enough material. I am working on a QLibnet Source Book. It will cover tips and tricks on using QLib and the various extensions and SD tools to help the programmer. I'm also working on a "QL PD Documentation Project". The idea is to get as much QL/COGS tech. information available to all. From various sources I already have:

QDOS Tapes

System Virts

Warren Darter's EasyPTE material

FE Tutorial

QLib Source Book (when done)

I've included some of my articles for various newsletters. I'm looking for authors to submit any articles they have written for any QL newsletter. Looking to focus on more tutorial type articles. I plan to make as much of this available as my web page. Thanks all for now.

Tim Symons

Dear George

We are working on Module C1, in order to update MacCom. Module C1 is David Solly's version of the CGOE for MacCom, which accepts +C as a terminal command, rather than B. Also, Len Corvill sent us a new financially of MODOC C1. We have filled in some and corrected some, in order to update Len's listing, by comparing it to what SPECTRAMON told us. Of course, SPECTRAMON is only one of your contributions to this effort!

Now, only 04, we have identified some CODE bugs 60010 to 60093. It is called at 60020, then within some I/O and OUTS. The CODE after 60093 seems to just (OUT a

RUN, COPY, and a COPY. Then it returns, and it looks like we can patch this up, by some CODE at the end of RAM, before 05510. KEEP ON TIMER's

Drew Langer

Anyone in your group have a TS2040 or TS2068 for sale?

William Chmura

Network Operations Manager, Kansas City LAN Support

US Dept. of Labor, BLS

1100 Main St. Suite 600

Kansas City, MO 64108

816-426-7085 816-426-8778 (Fax)

## Sinclair E-Mail List

|                     |                              |
|---------------------|------------------------------|
| Alfuchs, Alex       | alex@sinclaircentral.net     |
| Ames, Gerald        | gerald@sinclair.su.se        |
| Baker, Robin        | Rob@sinclair.com.demon.co.uk |
| Barnes, Doug        | dbarnes@pages.net            |
| Bostwright, Jack    | jbostw@sinclair.tower.com    |
| Brown, Al           | albrown@sinclair.net         |
| Brooks, Bill        | brooks@sinclair.net          |
| C. A. T. S.         | at0000@sinclair.net          |
| Cable, Bill         | billc@sinclair.com.com       |
| Chambers, George    | gcham@sinclair.com           |
| Collins, Bill       | billcoll@sinclair.com        |
| Conrad, Les         | lesconrad@sinclair.com       |
| Cruz-Perez, Jaime   | jcruz@sinclair.com           |
| Duffy, Andrew       | andduffy@sinclair.net        |
| Davis, Frank        | frankd@sinclair.net          |
| DeCourcy, Jeff      | JEDEC@11100@compuserve.com   |
| England, William    | wengland@sinclair.com        |
| Feng, Al            | al@sinclair.com              |
| Fink, Mike          | jojo@sinclair.com            |
| Frank, John         | jfrank@sinclair.com          |
| Ganger, Gary        | garyg@sinclair.com           |
| Gillette, Doug      | dgillette@sinclair.com       |
| Hafiz, Ron          | rhafiz@sinclair.com          |
| Hendricks, Mike     | mikeh@sinclair.com           |
| Hess, Fred          | fhess@sinclair.com           |
| Horsley, James      | jhs@sinclair.com             |
| Howard, John        | johnd@sinclair.com           |
| Jay, Matthias       | Matthias.Jay@sinclair.com    |
| Jones, Mike         | mjones@sinclair.com          |
| Jones, Terry        | tjones@sinclair.com          |
| Kaiser, Jim         | JKaiser@11100@compuserve.com |
| Kahala, Al          | al@sinclair.com              |
| Kelly, Homer        | hjkelly@sinclair.com         |
| Kingsley, Ed        | edk@sinclair.com             |
| Kling, Liv          | liv.kling@sinclair.com       |
| Krist               | krist@sinclair.com           |
| Kunkowski, Philip   | phk@sinclair.com             |
| Lancaster, Gary     | gylanc@sinclair.com          |
| Langer, David       | dlanger@sinclair.com         |
| Lebowitz, Dave      | dlebow@sinclair.com          |
| Lewis, Gary         | glouis@sinclair.com          |
| Lester-Adelt, Peter | p.lester@sinclair.com        |
| Malloy, Bob         | BMalloy@11100@compuserve.com |
| McKee, William      | wmckee@sinclair.com          |

|                   |                            |
|-------------------|----------------------------|
| Merr, Joseph      | josephmerr@sinclair.com    |
| Milley, Seymour   | seymil@sinclair.com        |
| Muth, Ray         | rmuth@sinclair.com         |
| Norris, Gary      | gnorris@sinclair.com       |
| Parish, Gil       | gilparish@sinclair.com     |
| Pederson, Hans    | hped@sinclair.com          |
| Pearson, John     | john.pearson@sinclair.com  |
| Perry, Russ       | rperry@sinclair.com        |
| Riggs, W.F.       | wfriggs@sinclair.com       |
| Risk, John        | jrisk@sinclair.com         |
| Shapard, Jay      | jshapard@sinclair.com      |
| Simon, Thomas     | tsimon@sinclair.com        |
| Skapinski, Tom    | tskapinski@sinclair.com    |
| Smith, Douglas    | douglas.smith@sinclair.com |
| Sorenson, Tim     | tsorenson@sinclair.com     |
| Sorenson, Tim     | tsorenson@sinclair.com     |
| Sorenson, Wally   | wallysorenson@sinclair.com |
| Sorenson, Robert  | rsorenson@sinclair.com     |
| Taylor, Jeff      | jtaylor@sinclair.com       |
| Theroux, Jeff     | jtheroux@sinclair.com      |
| Walters, Bob      | bwalters@sinclair.com      |
| Washington, Barry | barryw@sinclair.com        |

Alfred,

I just heard from Jim Ventura, and he has indicated that you can edit the DOS version of QLAY by using a CTRL-ALT-SHIFT-X (i.e., upper case X) a week.

Ventura also indicated that

\* via option -n you can simulate anything from 128k till 8Mg

\* only does not solve the directory issue. Without some transfer program from QL to PC it's of little use. For the moment, you may use WIN1.

\* SEReal is more likely but equally difficult to use to code. It will take a while to do that addition. No plans yet for direct PLP access.

\* The plan is that QLAY will remain 8086. As the weekend, if you, from release 040 on, all source code will be available too.

Alfred,

Here's what I have so far in the way of a Times Web Page.

I still need to link to other pages so "what you see is what you get", for now.

Constructive criticism is always welcome.

Jack Welcome to THE Sinclair World

Serving all Times/Sinclair computers - TS1000,

TS1500 & TS2068 (and maybe even the Spectra)

Monitor 1080(P)

TS2040 Questions and Inquiries contact: Alfred Kahala

(Alfred@compuserve.com)

The machines I TS1080 Computer 2 TS1400

Computer 3 TS2068 Computer

The Peripherals - TS1814 16K RAM - TS1510

Command Cartridge Player - TS2028 Compute Program

Recorder - TS2040 Printer - TS2050 Telephone Modem

- TS2060 Command Sticks

The Software - TS1080/1500 - TS2068

Tell us what you think of this site

Jack Bostwright, May 22, 1994 jbostrw@sinclair.com

# FROM THE CHAIRMAN'S DISK II

Donald S. Lambert

**W**hen I had my annual physical in December Dr. Parson suggested get my appendix scar operated on since it was bothering. So that was a medical problem to get taken care of before it fully formed and outgassed the bowels. I put that on hold for a while. Then when I went in for an eye exam February 25th which I felt was needed to get new lenses I was told that both eyes were in need of cataract surgery. The left eye for the first time and the right eye that had been operated on in 1994 a laser burn off of the membrane back of the implanted lens and that would fix that eye for the future since it would never get cloudy again.

**S**o I ended up with an eye appointment with Dr. Parson who is the eye surgeon that I had went to before. And the appointment was for April 8th to exam the left eye for first time surgery and for the right eye to be treated (blasting the membrane off in tiny blasts). March 8th I went to Indianapolis to the HandEye and talked to Frank Davis about his experiences with his herniated appendix scar. No way I wanted to go through that. I decided that the worst of the winter was over. I saw the Surgeon Dr. Pratt, and on March 16th I was operated on and spent two days in the hospital and then loaded around home (no driving the cars as lifting of more than 5 lbs.) until April 16th when I was told I could do anything I wanted to. On April 16th Marzio, my wife, drove me to Dr. Parson's office and we spent most of an afternoon there and I got the laser treatment. That evening at 10 the effects of all the eye drops and Q-tips of them as the kids would say) wore off and my vision return to the night eye. Now did I know that it had worked? I could read the fine print in my paperback dictionary without a magnifying glass! What a goof! Just 11th when I go back to Dr. Parson's clinic to get my left eye worked on.

**I** will admit that I did not get much computing done during my recovery. For the first part I did a lot of napping. Seems like I was worn out from just getting up and eating breakfast and shaving and washing up. And then later it seems like all I wanted to do with the computer required lifting in excess of five pounds. And the weather was so gloomy that I didn't have much motivation. And my five foot six inch five pound wife had to stare the yard three times before I was able to take over. I am amazed I bought a self-propelled lawn mower last fall.

**T**he hardest thing to do is to ride with the wife driving and not back-seat drive. Her driving habits are not new. But we got there and no accidents. NO I guess all is O.K.

**W**ay back when last year sometimes I saw an article in NUTS & VOLTS about making a BATTERY GAS GAUGE. Well, a later update gave a company that offered a printed circuit board for that and my letter to them was printed in the current (May 1994) issue to modify the 12 volt monitoring to a 6 volt (or the math to figure for any volt) battery. I had ordered a pair of boards when I saw that they were available and I ordered the LM3914 chip which came last week. So now as the garage gets warmer

have to get that going for using 8 1/2" x 11" components. Alltime batteries to be steady for the 248.

**I** also ordered a 110 VAC to 220 VAC (wall-wart) to use on the 248 EPROMER. I needed to have enough room to make the order over \$20.00 to avoid the extra \$5.00 charge for a small order. I ordered from JAMECO. For those interested the transformer is #99457 50Vn 110VAC to 220VAC weight 0.7 pounds \$5.99. JAMECO 1-800-831-4242 and ask for a catalog.

**A**fter all the excitement and planning I believe that BMD has all the DOS stuff moved to where it can be accessed and shipped to say that went it. But like I always have mentioned there are so many that are using the Times Similar component that don't know of all the sources there are. If we had known of Jack Boatwright before then all would have been taken care of much easier and cheaper. But at least it got done.

**I** did get the lists of the CATS sources library made from the information in the translation. I have found that some of the programs would not LOAD and SAVE BUT in some cases learned that some of the programs were Spectrum programs. And one program will not LIST even if you can get it to break. But on that I did get further information so I will have to get back to that. He John Riley wrote, he learned a lot from converting cassette A/Ds (DCEY) but I'm at and the pure ASCII does not have a NO! SAVE button.

**I** was SAYING to Oger SAUT and one thing it has in the dictionary is the byte length of the program. SAYED. So that is handy when you see from the header reader that the program is, for instance, 4751 bytes long and the Cat after SAYING to disk shows 1393 you know that the source program did not get SAYED. I also learned that using MESSAGE "" to LOAD a program often would break a program that I could not BREAK my other way. Of course that I did had to a lot of you.

**I** use MSCRIPT for my word processor and I wanted to number the pages. So read the MSCRIPT manual and it gives it as <PP=xxx where the xx is the starting number of the page. But it didn't work however I saw an example in the manual:

```
>Lst=03, L2=50, P2=4, PL=40, PP=1
>BT write name/ Page 5
```

**T**hat did work. For those of you that don't use MSCRIPT this is the header and none of this appears in the text and disappeared a 13 Left Margin 8, Line Length 50, Page Space 4, Page length 40, Page number 1. Between of text article names and the slashes the article name and the article name would be outlined and both slashes before the article name would print the article name on the far right. Now the Page 5 is the one that gets the page number to print. I suppose the 5 is for the string of the page number. If you had wanted the article name at the top along with the page number you would have used TT instead of BT. TT is Top of Text in my mind.

Of course it takes a little waste paper to learn the printer PS which is the number of lines between pages. Though I had it set and it ran off several pages and suddenly it started to put text on the following page and then the article came and Page number. What had happened was that the preceding pages had a blank line at the bottom of each page so when the line on the bottom line had text was the PS forced to the next page. I cured that by decreasing the PL by one. How many more have I

been using MS-CRPT and didn't know how to use Page numbering? Must be about 10 or 14.

Now that I am capable of doing things I have been informed that get done. So that is what will be what I will be doing the next few weeks. With thing being what I got to do between times if there is any energy left for that. I do find that I am more easily 30 maybe I am not 100% over the operation. Till next time this is it.

## Timex-Sinclair Inventory

### Available To You for **Free** (You pay shipping expenses)

- |                                                     |                                                      |
|-----------------------------------------------------|------------------------------------------------------|
| 9 TS1016 16K Ram Pak (1988)                         | 10 Keyboard- EZ Key Interface Kit (1989)(2048)       |
| 3 Mega Bridge-16K RAM Packs                         | 1 Book-OL Owners' Manual (OL)(Used)(S/W)             |
| 1 Modern-Byte-Back MD-68 Assembled (2048)           | 1 Printo-TS2040 Complete (Used)                      |
| 4 Modern-Byte-Back SpectraScan V1.1 (2048)          | 1 Printo-Alysson 32 Thermal Printer (Used)           |
| 64 Times-Crunchybs (2048-C)                         | 7 Case-Computer2048 W/Keyboard (No Modulators)       |
| 64 Times-States & Capitals (2048-C)                 | 1 Card Edge-44 Pro 1 Spacing (2048)(10W)             |
| 1 Larkin-George Chambers Utility Disk (2048)(P4)    | 64 Times-Spelling 1 (2048-T)(S/W)                    |
| 1 Chambers-LKDOS Disk Utility Package (2048)(S/W)   | 8 Times-Crunchybs (2048-T)(S/W)                      |
| 1 Chambers-MB DOS to LKDOS ASCII File Converter     | 7 Times-States & Capitals (2048-T)(S/W)              |
| 1 Byte Power-DU S Utility Disk (P4)(Larkin)         | 1 Logical V6.0 Upgrade (2048)(S/W)(P4)               |
| 1 Manual-D U S Users Manual On Disk LKDOS (2048)    | 2 Manual-LKDOS L.M.31 Upgrade (S/W)(2048)            |
| 1 Basic Tool Kit (2048)                             | 5 Book-Sams Beginner/Intermediate Guide              |
| 4 R-Z Key-Updated 2000 (2048)                       | 5 Book-Sams Intermediate/Advanced Guide              |
| 1 Novell-68 Suite-LKDOS-TimeShare/Actware/Word/2047 | 12 Book-Computer Interfacing In Science (2000/2048)  |
| 2 Profile 2048 (1104)(2048)                         | 16 Book-TS2048 Basics & Beyond (S/W)(2048)           |
| 1 Tech Drive & (2048)                               | 1 Book-Sams Games For Your TS (S/W)(1000/1500/2048)  |
| 1 Zebra-Creative Graphics & Sound (2048)            | 1 Book-2048/2050 Telecommunications Manual (Carter)  |
| 1 Zebra-Greeting Card Designer (2048)               | 1 Book-Inside The TS2048 (2048)(S/W)                 |
| 1 Zebra-Icon Library-Menus (2048)                   | 5 Computer-TS1000 (11W)                              |
| 1 Zebra-Icon Library-America (2048)                 | 5 Computer-TS1000 (Au-4)(11W)                        |
| 1 Zebra-Sign Designer (2048)                        | 1 Ipi-Dial Program (2000)(S/W)                       |
| 1 Zebra-Banner Designer (2048)                      | 4 Keytop-Checker House (1000)(11W)                   |
| 1 Zebra-Icon Library-Holiday #1 (2048)              | 1 A&I 1008 Microdrive (11W)(1000)                    |
| 1 Zebra-Icon Library-Holiday #2 (2048)              | 3 Compass-Keyboard Sleeper Kit (1000)(11W)           |
| 1 Zebra-Icon Library-Balloon (2048)                 | 2 Keyboard-Ti Surplus (1000/1500)(10W)               |
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# QLAY 0.85 - First Look & More

by Al Fong

Joe Venema (<http://www.iamal.net/box/AlJoeVenema/>) recently made a new version of QLAY available (30 May 1998).

QLAY is a Firmware, QL simulator; and with the help of others, I recovered a copy of the most recently posted ZIP file - first, version 0.84, and subsequently, QLAY 0.85. For all practical purposes, QLAY requires a 486-or-better running at 66 MHz or faster with 1 Meg of memory. The emulation requires a 486K QL.

The most recent release of QLAY actually comes in two versions - the traditional DOS program and one that can be launched directly from within Windows 95. That's the good news. The better news is that Joe Venema has indicated that he is already working on the next version and it should be ready by the time you read this.

## QLAY 0.85a

The DOS-based code functions in a manner similar to the previous versions.

First you load the CWSDFM.EXE file, and then the QL code and extensions are loaded, and then the MFA (Native File Access) code is loaded. The MFA code gives QLAY the ability to access the host PC's hardware and is a remarkable piece of coding.

Depending on the speed of your computer, the code is processed, and then the emulation begins.

The obvious change is the inclusion of the QLAY RC file. This file is an ASCII script which is constantly a dedicated BATCH file which both version 0.83a & 0.85b look for when the EXE-loadable file is loaded. This is how the (stock) QLAY RC file looks:

```
<c> ja .rom
<c> c00000fa.f .rom
<f> 1000
```

The syntax appears to be just different enough that I was not able to successfully load the TR2\_EXTENSIONS on the first several tries.

I finally e-mailed Joe Venema to get the "proper" syntax:

```
<f> ja .rom
<c> c00000fa.f\tr2.exe
<c> c00000fa.f\tr2a.rom
<f> 1
```

The new version comes with an image of the Dynamic RAM code, but, I have not been able to load it to date. This code (or, similar) is necessary if you want to use the XTIBANGH program which sets up temporary files in RAM. All other (most) programs run, including the TURBO compiler.

Exit the emulation via CTRL-ALT-DEL key combination when loaded from within Windows.

To exit from a plain DOS load, I believe you have to reset the computer.

## QLAY 0.85b

For reasons that are always suspect, I upgraded my IBM compatible PC recently and the OS with a copy of Win95. While subjecting myself to the OS upgrade was semi-insane (i.e., I inadvertently wiped out all my files), having Windows allows me to give the new QLAYWEXE (i.e., QLAY 0.85b) a try.

QLAYWEXE is designed to run directly from either a Windows icon or from the Windows DOS prompt.

When you load QLAYWEXE, you will see a modest window with the following options: File, Screen, Language, Help.

Using the "File" selection, you essentially verify (or, load) the equivalent of the CWSDFM.EXE code by selecting "Yes". You then select "Go". Very shortly after that, you will see the familiar speckled Screen followed by the QL's startup screen.

I was not able to load an image of my Minerva ROM code. I was told that this is only viable with the 18L1 (i.e., older) code (which I have). I have to presume that my Minerva code file was corrupted in the transfer.

Your language choice is English or German, with the default one being English.

I believe that all my problems can be related to implementation of the QLAY.RC file.

If your QL program uses ALT keys, then you will want to use the DOS version due to a key-stroke conflict which will occur with Win35.

### Hey, I knew it could be done!

Many of you may recall that one of my biggest complaints about QDOS (the OS used for the QXL & QPC emulators) is that it's the display that is generated is less than I think it could be.

Jan Vermeir modestly states that "the Windows35 version has better display support". With the Win35 version of QLAY, Jan Vermeir has demonstrated that the display is not only scalable, but that it can be done in an efficient manner. In version 0.85b, the screen can be selected before the emulation OR during the emulation. The five display sizes which he has provided are:

```
Size 1: 512 x 512
Size 2: 512 x 361
Size 3: 768 x 512
Size 4: 1024 x 683
Size 5: 1024 x 768
```

The great news is that Size 3 actually fills the usable screen space (9.5" x 7.5", or ~11.75" diagonal on a 14" VGA monitor). I have to mention that the first several times I switched to Size 3 that it was just a little larger than the available screen space. Initially, I would estimate that Size 3 was being displayed on a screen line higher than a normal screen, and one character wider.

This over-fill stopped after I added the CWDIMENSION file to the same directory as the LAYWIDE program. Coincidence? I'm not sure. I haven't removed the file to verify this.

Size 4 & Size 5 definitely over-fill a standard VGA screen. Size 5 is similar to the image created by QMSQ, but the vertical is slightly compressed due to the "top line" being occupied by the control bar (7.5" x 7.5").

Size 5 is taller than the standard QLAY (0.85a) display and the QMSQ display (7.75" x 7").

The first quality version, with the font created in Size 5 as best described as being a compromise (14" font height). The font in Size 5 & Size 6 are similar to CSDLE 0.3 (14" & 31P" font height, respectively), and, the font in Size 4 & Size 7 appear to be similar to CSDLE 1.1 (51P" & 34P" font height, respectively).

As one might suspect, there is a price to pay for the scalability of the screen display with the larger displays using more of the host's resources. Ergo, the larger the display selected, the slower the emulation.

As I mentioned, the size can be switched at any time during the emulation when using version 0.85b, so, the smaller size can be selected when greater speed is required, and to the full screen mode at other times.

### Task Switchable

Both versions are easily task switchable from within Win35 by using either the ALT\_ESC or the ALT\_TAB key combination, or, the pointer arrow with QLAYW.EXE if your task bar is visible. Of course, use the CTRL\_ESC

key combination to load other programs, or, the pointer arrow with QLAYW.EXE.

QLAY 0.85a is unstable if other programs are dormant in the background, but, Vermeir assures me that this problem will have been fixed with subsequent releases.

### Minerva Compatibility

Only the older (0.81i) Minerva mode works. Even so, I was not able to load the Minerva ROM image that I made. I will try this again at a later date.

### QLAYT

QLAYT.EXE is merely an essential DOS utility for effectively using QLAY. The QLAYT.EXE is found on either ZIP files, so, you should ensure that if you are downloading from Vermeir's web site.

There is a QLAYT program which I believe is for use with LINUX, and this should not be confused with the QLAYT.EXE program. QLAYT allows you, first and foremost, to add programs to the active directory file (QLAY.DIR).

With the anticipated addition of QDOS floppy access, you should be able to add files to your hard drive directly from floppy. The most important thing to know is that if you want to INSERT a file into the QLAY dir, the DOS syntax is as follows:

```
C:\> QLAYT -i QLAYdir -d 31760
```

QLAYT switches are case sensitive. Note the file being inserted into the existing QLAYDIR file is "QLAYT" which has a size of 31760 bytes! The file size of some files does NOT need to be declared.

### Limitations

Some of the documentation presents you know more than I do. The QLAY.RC file requires the syntax, for writing a file differently than in the past:

TK2\_EXTENSIONS must be provided by the user.

QLAYW.EXE is designed to run without the CWDIMENSION file, but it appears to be more stable when it is accessible by the QLAY.RC file.

Sub-DIRventions are not currently supported.

While I don't know how to use the virtual "ndrv" drives for storage (this is probably something that I should learn how to do in the near future because I believe these can be used to effectively substitute for sub-DIRventions), and QLAY's IO is still limited. While floppy access should be implemented by the time you read this, QLAY still does not have SERIAL access, but, presumably this will be a future function.

### Why QLAYT

I have been told that there is another Framework, QDOS emulator (WinQL - written by the author of the emulator that runs on the 68000-based MAC), but, I haven't seen a copy, yet, so, I do not know what limitations exist with it (if any). The premise that I am sure that some people will ask is "Why would I want to use QLAYT" (or, any other emulator).

There are actually reasons that QLAY, as tested, is more than adequate for most people who need to use a QDOS emulator. The fact that files are created saved to your hard drive in DOS format may be a benefit for some people because it eliminates the file conversion step. For example, I recently prepared a manuscript which began in Qedit, but which I later imported into Word for

formatting and printing; and, I was glad for the better fonts available through Windows (having said that, I have to admit that I have not used or seen any of the output generated by the programs from PRIMS, so, I don't know what I am missing with regard to QL-to-printer output).

If you have a proprietary program that was written to run on QDOS, you no longer need to be concerned with porting it over to run on a PC since you can simply run it using the QLAY emulation. Or, for example, if you do not have the PC version of the PRISON State, but prefer to use DREYAR (as I do) for your database needs, then QLAY will allow you to continue to do so.

## UPDATE

Robert Hartwig

I have gotten several inquiries about the previous QPC articles, especially concerning the SMSQ/QL environment in which it runs. Since I have used SMSQ/QL only with QPC, and not with systems such as Atari, QLX, or Gold Card, I don't know what differences one would find with these versions, if any.

Recently I updated my QPC to v1.42, which is the current version as of April 8. This also included an update of SMSQ/QL to v2.88, since they are both on the one master disk. These updates are free to registered users, requiring only the return of the original master disk with three DCL's (journalized reply coupons). If a revised manual is also desired, add another five DCL's, or DM 10 if you purchased QPC from Jackson Micro Software.

The most obvious improvements in the QPC/SMSQ/QL combo are in speed. As compared to my original versions, the floppy disk and hard drive access is up to nine times faster. The screen driver (depending on your graphics card and the SW it uses) now supports VESA, QL (512 X 256 model, EGA, VGA, SVGA, up to 1600 X 1200 pixels, at up to twice the former display speed.

Note that, in PC mode, higher display resolutions produce finer definition but smaller actual window size, except when used with current versions of programs such as ProWord and Text 87 which allow configuration of display fonts. The WINDOW #0, #1, #2,x,y,z,s command may be used to change BASIC window sizes, but programs such as the old PRISON menu and NCHASAGE were written with the QL screen size of 512 X 256 encoded into them and so will default to this.

There is a dramatic improvement in the time required to format a WIN partition (initially a very long DOS file) on a hard drive or removable cartridge drive. What once took an hour or more now is done in only a few seconds! In fact it takes longer to type in the two commands to supervisor and then format the WIN file than it does to actually create the partition. Direct access to and from other DOS files is now enabled in QPC.

In my previous QPC article I created a contained line in the DOS AUTORASC.BAT file which will speed up booting and termination of the emulator by a few seconds. Following the PATH definition line, add the line: SET COMSPEC=\\DOS\\COMMAND.COM Make

if a program will run on a standard QL, then more-than-likely, it will run with the QLAY emulation, but, the exception might be older games which require a key. Unlike the QPC emulator, all versions of the TURBO compiler work. Unlike the QPC emulator, QLAY is (currently) freeware.

All in all, I think that QLAY is excellent QDOS emulator for a person with a suitable host PC who has a need to access existing QDOS programs and files.

**HAPPY TRAILS,  
AND COMPUTING, TO YOU. —**



dDOS the drive directory where COMMAND.COM is to be found on the hard drive rather than on the host floppy, to which it would otherwise default.

I have also gained some experience in running the TEXT 87 Patch and Perfection word-processors in QPC. Although I do not have the latest versions of either, both seem well-behaved. I used a 1985 version of Edly Young's LINTOR. While I have not used its code-compiling features, the math-solving and line-editing seem to function OK.

Freddy Vaché of Digital Precision recently announced in QL Today that an upgraded version of Perfection is available this spring. It is able to take better advantage of the enhanced screen resolutions enabled by the improvements in the QPC/SMSQ/QL combo. He also said that the Turbo compiler and Toolset are being upgraded for better compatibility with Minerva SMSQ/QL and SMSQ/QL. According to the QPC manual, depending on the speed of the CPU on the host PC, there is little or no speed advantage in using Turbo or QLabrador-compiled programs with QPC although the language may be adapted to do so by removing any code SMSQ/QL doesn't like.

In other QL Today news, a QBranch ad in the March/April issue announces that a 500-page SBASIC/SUPERBASIC Reference Manual is now available. It is a guide to BASIC programming that brings together all the command structures now provided in QDOS/SBASIC/SMSQ/QL. It includes three disks of PD utilities, example procedures, and an electronic index. Inquiries of QBranch for pricing details. They have their own web site at <http://www.qbranch.com.us.uk>.

Last but not least, at the QL meeting in Underdon, Germany, last November, a working prototype of the Q40 was demonstrated. This is a machine which replicates or replaces all QL hardware in a configuration that fits an industry standard case and power supply. Presently it is using a Motorola 68040 microprocessor, but will have the 68060 with 0-40 million gate technology when it is in production. It will run under the SMSQ/QL environment, with high color-resolution graphics, and will accept a standard keyboard. Extensions slots are provided for an IDE/ED card to use with 2 HD floppies, 2 IDE hard drives, 2 serial ports, a parallel port, a joystick, CD ROM, and up to 32 MB DRAM SDRAM memory.

As I write this, Kevin Costner's movie "The Postman" has just taken the Razzie Awards (from the Golden Raspberry Foundation) in every major category worst movie of 1997, worst director, worst screenplay, worst song, worst actor. With that as the type of inspiration that sets creative juices flowing, consider this as a topic for discussion on the pages of the newsletter, the all-time worst TOS software. This is certainly the piece in time appropriate for identifying such software, being for enough past most new software releases that it is unlikely a later wanting candidate will come along, yet close enough that most of the past releases are remembered (by someone) and can be brought to light. Only commercial software is eligible, anyone can write a rotten program (just as anyone can make a rotten home movie), but it takes both past skills and a big ego to produce a piece of trash and waste other people's pay money for it.

I was going through old TOS/OS software this weekend, and came upon our camera (data unknown) from "Software Development Associates" of Phoenix, Arizona (which I assume was just some guy cranking out tapes from his garage). I have no other example of programming from those folks, but this one, called "SDA Games One" (grudgingly part numbered "G001"), includes five programs and hence presents something of a sampling from the company. Most are 2K, and I have one cannot expect too much from early 2K software (and these programs do not exceed expectations on that score).

However, my candidate for truly bad status is the last program, called "Backdoor", which requires 16K and hence does not have the "only 2K" excuse.

The first thing you notice in Backdoor (other than the fact that it did not notice when you loaded it) is that the author did not bother to make sure words stayed together at the end of each screen line. (In this, it is consistent with the other programs on the tape.) For instance, the fragment "SUIT-MCHER" ends up on one line, and the remaining "N" on the next. Since this program was written in simple BASIC, it is easy enough to go in to fix that, and having done so I know that it doesn't cause an out-of-memory error or other unfortunate side effects, so—why didn't the author take the 5 minutes needed to fix it before the program was released? Surely he at least looked at the finished work before a word was the door? Surely he was not simply typing that program in from a book of BASIC programs

written for another unit? Surely he knew enough about BASIC programming himself to know how to fix the problem? Did he just not care, or did he not think anyone else would notice?

The program asks, "Do You Want Directions?" As with every other program in the universe, I pressed "Y" and returned it. The program responds with, "You Or No Please." The programmer couldn't figure out how to make do with a one letter input? If he needed a full "Yes" or "No", why didn't he specify that in the question ("Do You Want Directions (Yes/No)?"? Not an suspicious start.

But the core problem with this game is the whole concept. To quote from the written instructions:

"After pressing RUN the screen goes blank and says that way for approximately 3 minutes. Then the game begins. The game consists of a deck of 52 cards, in which the computer randomly selects two cards, one for you and one for itself. The higher of the two cards wins. There are 26 such "battles" per game. The computer keeps track of who won each battle, not counting ties. There is no response necessary from you. At the end of the game, a display on the screen gives the final score and tells who won the game."

The game is as good as its word. After a very long screen blank, it pops up with a message like:

"You're D-Q Mine S-Q I Win You Have 0 I Have 1"

No graphics of any sort, just the above text, using S, C, D, and H as other options for Spade, Club, Diamond and Heart respectively. After a PAUSE 300 (about 3 seconds), it blanks again momentarily and comes back with something like:

"You're S-A Mine C-A You Win You Have 1 I Have 1"

And so on. Sure enough, absolutely no input is needed from the user! The computer simply goes through all 26 "battles" and announces the winner, then says "Thanks For Playing", and ends the program. Thanks for playing what?? The user doesn't do a thing. As dull as this game would be if it had not it manually, by himself, with a deck of cards, isn't it twice as boring to just sit there watching the computer play itself? Do you suppose any user ever ran this program more than once, unless it was to make absolutely sure it was as bad as he thought it was the first time?

To be up-front with the overall situation, I must concede that the program has no "bugs", it produces the correct 52 cards, with an 13 of Spades for duplicate Aces of Clubs. But then again, functioning correctly is probably easy to do when you don't have to worry about possibly users inputting anything. So, I hereby nominate "SDA-Backdoor" as "Worst TOS/OS Program, 16K Version". I hope my fellow users will identify and submit other worthy candidates, for all species of TOS computers, so we can eventually award our own "Razzie".



## Surfing The Net With The TS-206S

*by David Linton*

In this article, we discuss several servers, provided to us in subscription form, by a computer system, that speaks UNIX. We have something to say about online, email, surfing lists, the web, names, gopher, and ftp

After using telnet to establish computer contact, the rest of these programs communicate off-line. On-Line communications (in real time) are talk, irc, or ready Print, we use the telephone, to connect with our Internet



provider, in order to show the UNIX prompt, \$, on the screen. TELNET TELNET is a facility, so fundamental and so old in the history of accessing computers, in its answer the phone whenever we make our initial call to the Internet service. Then, of course, TELNET serves to connect us to whatever other computers on the Internet, that we choose to talk to. Boy, that must really kill the guys at the telephone company, as they try to get a piece of each such action!

**H**ere is how it goes for me. I call 710-978-4700, which responds with A201ARNET and a request for a user name. After that, it asks for my password. After connect appears, the Macintosh screen is displayed. Should I type TELNET user-name@computer-name, then a brief pause occurs, based upon Internet traffic, followed by a response with a request for a user name. After that, it asks for my password..., as above. From the foregoing, you should see, that using TELNET is like calling a BBS, e.g., SOL BBS at 320 862 0318 with QUEST as a user name and QUEST as a password. By a careful reading of the above, you should ALSO see, that each TELNET site differs in login procedure, as much as it differs in general content. This includes the initial call to our Internet service! Anyway, by going through the above steps, you have gained ACCESS to the Internet under ACCESS to whatever other site on the Internet, you might have addressed.

### ELECTRONIC MAIL

We use program MAIL, in order to SEND mail over the Internet, using the 3868 computer and a shell account, in order to access the web. I don't know all the details, but MacCom software does not seem to entirely emulate the VT100 terminal, because we cannot go UP on the screen and, hence, we are limited to line editors. Shell accounts usually use FINE and PICO to read mail, but, alas, they are full-screen editors. But, they replaced MAIL, which has been left as a rather efficient line editor, and MAIL sure does a good job with our 3868 ! Suppose we are looking at the UNIX prompt, \$, on the screen. Then, we type mail user-name@computer-name, in order to set up the computer, for SENDING the message which follows, to the user with user-name user-name at the computer, loading the name computer-name.

**N**ext, my screen jumps to the start of the next line, which is BLANK, of course (no full-screen editor!) I enter the message, line by line (back-space editing only). I terminate the message, by typing only on a line and pressing ENTER. The message can also be terminated, by typing "D" or "d" on a blank line, where " denotes first pressing the CONTROL key, CAPS-SHIFTED on the 3868 with MacCom. When the UNIX prompt, \$, subsequently appears, the message will have been SENT to the addressee, user-name@computer-name. Now, in order to check for your own mail, simply type mail and press ENTER. A response of NO MAIL, means no empty mailbox. Otherwise, FROM... will appear, followed by any first read message in your mailbox. After listing an email message to you, the prompt, ?, will appear. This means a REPLY, should you type r and press ENTER. This also DELETES that particular letter from your mailbox. In order to DELETE the letter only (without a REPLY,) then simply type d after the prompt.?

### MAILING LISTS

There are something we can join, in order to keep our electronic mailbox filled with interesting stuff. For example, OPEN your download buffer, in order to get an ASCII copy of the following message, where you get the UNIX prompt \$ onto the screen, and then ENTER the line: `help` (there's an online scholarship). Don't forget to close the download buffer, when finished! It now contains information on how to join (or leave) mailing lists, each devoted to a specific special interest group. Whenever a member submits a mail to the mailing list, then it is immediately sent to all other members of the group. So, all you need to know is how to send and receive email. Also, the address of an interesting mailing list to talk with would be helpful. -)

### FILE TRANSFER PROTOCOL

**ftp** is the name of the UNIX program, for implementing FTP. First, get the UNIX prompt, \$, onto the screen. ENTER `ftp` alone, followed on the next line by open rlm.matsci. This last will be in response to the `ftp` prompt, `ftp>`, resulting from the initial entry of `ftp`. Alternatively, we can connect to the remote host, rlm.matsci, by entering the line `ftp>rlm.matsci`. The `ftp` facility can be terminated, by typing quit, in response to any `ftp` prompt, `ftp>`. Use the `get` command, to download any file to your current directory. Of course, you should already have set up a directory on the UNIX system, where you can store your download files. Do this, before you use `ftp` to access the remote directory. Furthermore, there are simple commands like `cd`, to Change to the desired remote Directory. Now, we are up- and down-load all kinds of files, as the Internet machine with UNIX is somewhat more sophisticated than our 3868 system with MacCom. Just be aware, that downloads to our 3868 system are limited to ASCII transfers.

### USENET (newsgroups)

The UNIX program for accessing USENET is called `nn`. Now, if you just ENTER the name nn then would follow an endless sequence of questions, on subscribing to NEW newsgroups, each question demanding a YES or NO answer, followed by an identical question ? So, here is what we do:

**A**t the UNIX prompt, \$, ENTER `nn` then `nn <q`. This will bring up a menu of all newsgroups, which you have read. You can enter any newsgroup on the list, by ENTERING its line number from the list, followed by another ENTER. We escape back to the last screen, by entering `q`. We can keep entering `q's` like this, till we reach the UNIX prompt. At the UNIX prompt, we can also choose to read a specific newsgroup, say all 1d in one-dimensional figures, by ENTERING the line `nn <q all 1d` and, yes, the space(s) following `nn` is not critical!

The important thing is the ability to arrive at the UNIX prompt, \$, on the screen. While that is more complicated, than hitting a telephone receiver for the dial tone, that is still a simple task, costs about \$20 monthly, and requires the address of your Internet service provider. So, when signing up for Internet access, be sure to keep track of the telephone number of the tech (system administrator).

### @-DIP-123ER

Let's explore gopherworld. Sounds like the underground doesn't it ! To do this, we call on a UNIX program, called

**gopher.** While looking at the UNIX prompt, I, we can type **gopher** and then press ENTER. This will access my local **gopher** site, as set up by the sysop. In order to access a specific **gopher** site say, **wsnwp.apn.com**, then enter the line **gopher wsnwp.apn.com**. Up comes the MENU, most of whose items refer to other MENUs. So, choose an item, by entering its line number, or by pressing the BREAK key, or space bar, till the item be displayed at screen bottom. Then, enter the item, by pressing ENTER. After thus searching the MENU's for your particularly interesting item, enter the item, by pressing ENTER. Next, program **gopher** will fetch your topic and display the text on your screen, *not* scrollable at a time. So, you can spend all day (or night) exploring the underworld of gopheropia, using only six basic commands: **k** (or **^F**) and **j** (or **^N**) to move UP and DOWN within a MENU, respectively; ENTER and **q** to move from one MENU to the next and previous, respectively, and, SPACE (or **>** or **^**) and **b** (or **<** or **^**) to page forward and backward through long MENU's, respectively. Should we get lost amongst all these MENU's of MENU's, we can always type **m**, to escape back to the initial MENU.<sup>1</sup> At the UNIX prompt, I, we can escape back to the Internet using MIMU, by typing stop or **^D** or **^C**. We terminate the session, by typing the Internet with **^C** at the main MENU!

#### THE WEB

The web is man's latest attempt at a universal communication system. After using the phone to connect to an Internet provider (like using TELNET) MAILING LISTS offered the first such attempt. Then, USENET followed with a little better access to the web, in order to support newsgroups of numerous interests (like using message bases and NNTP). The World Wide Web (www) was developed at CERN in Switzerland, to access remote amounts of Physics information. Thanks to Marc Andreessen and his program, MOSAIC, the WWW degenerated into THE WEB: a complete information system with LINKS, to permit easy jumping from item to words to pictures to sounds to...

**N**ow, Docid's Theoria, that completeness be testament to convenience, is surely applicable, here, as there is little consistency on The Web.<sup>2</sup> LYNX is the program, used to access the web from a shell account. It runs on the Internet (computer and terminal) all the above words and ideas of the web be that what it may, we presume, that we are looking at the UNIX prompt, I, on our screen, CRT, or monitor. If you simply type **lynx** and press ENTER, then you should get the banner for your local Internet system, that you are now using. At banner bottom, enter **g** and computer-name of the target system. Alternatively, in order to get access to somebody else's site, you can type their computer-name, after typing **lynx** - **lynx computer-name**. Of course, it is important to separate **lynx** from **computer-name** (by space).

We wish to take this opportunity to announce the opening of a new Message Base on SOL 1000, entitled Advanced 2000 Topics, and dedicated to discussions on developing the ASAPlan from facility for the 2000, branch switching on the 2000, and Internet applications of the 2000, in general. The above procedure should result in any site's banner and/or main menu, world-wide.

#### TALK

The talk facility is implemented by the UNIX program, **talk**. Usage is the same as SOL 1000 in TALK mode or in TERM mode. Some people refer to the interchange of ASCII information as CHAT mode. The other person needs a talk facility, which is compatible with the UNIX talk program. It also helps, that they be at the computer, addressed on the Internet. → Programs for talk, which are compatible with UNIX talk, are available on the Internet for download at no cost, using anonymous FTP. ENTER the following line: **talk user-name@computer-name** in order to connect (for FREE) to the person, using computer-name to the computer computer-name. If the person be there and not busy, then he or she will be paged and asked to respond with a **talk** command, using your user-name and computer-name. Connection follows, and you can both begin talking. If the person be there and busy, then [banging your party again] will appear on our screen every ten seconds, till either connection be established or we press **^C**. Before we try to talk to someone, using the talk facility, always finger them with the line: **finger user-name@computer-name**. The information from finger should tell us, whether the person be logged in and willing to talk. The connection can be terminated, when someone has **^C**. Then, the UNIX prompt, I, responds. There are like FREE phone calls, all over the world at only \$20 monthly. Use it or lose it, but do not abuse it!

#### INTERNET RELAY CHAT

This is the ultimate TALK facility, talk, talk, talk... talk. Once on board, everything you type is printed to everyone else's screen, and you see everything typed by everyone else. Private messages, can be sent and/or removed to/from any online user. For a list of the thousands of users, online, type **^LIST**. Anyway, in order to access this facility, get the UNIX prompt, I, on the screen, and ENTER **irc**. My local server is to EPNET, which has users from over nineteen countries (foreign languages?). For example, there is a guy from downtown Helsinki, Yugoslavia, broadcasting on student activities there. He acts on ice channel! Also, some guy is listed as albertito, which is my birth name. Wonder who's on his mind! Most exchanges are in English, but I saw some Spanish logs in the LIST.

#### MUD

Multi-User Dungeons is a GAME program. No, it's much more, since it provides a game environment among several players. That's how much are all the same. What's are all different, by providing different environments, making the players... differently! You are going to have to ask your friends, about which mode to choose.

OK, Alad! I have just sent you an article on T23004 application to the Internet, submitted sometime last year. It has been corrected and updated. Anyway, the 2000 was used all the way. I found the article on the APPLE, posted a cover to the 2000, edited it with MSWORD and sent it to the Internet via the 2000! So, the 2000 has some life left for the second millennium. The problems were worked around, by SAVING the text file to a clean part of the disk, multiple times. Naturally, there seems to be a synchronization problems at 1200 baud.

# How to Hack on The 2N-Spectrum *Laszlo Kovacs*

## PART 2 - EASY LOADING SYSTEMS

So far, you've worked out the all important basics of hacking. However, there is another, equally important facet of hacking games that you should know about.

Few games these days are unprotected. They feature "protection systems" which prevent you from breaking into a program and fiddling about with it. The difficulty level varies, but in general they are two concepts - loaderless loading and decryption.

Before we do anything, I should point out that you're going to need a disassembler from now on. The machine code listings in this book use Dwyer's notation, but 007 Disassembler's notation is almost identical, except it uses decimal instead of hex. Hopefully, you shouldn't get lost if you use

Anyway, for now, we'll forget about decryption and increments of loaderless loaders, since they're common to all protection systems.

A loaderless loader will look something like this:

```
00 21 XX XX    LD IX,XXXX
11 XX XX      LD IX,XXXX
3E FF          LD A,FF
37             SCF
CD 56 05       CALL #0556
```

where XX can be any number from 000 to 0FF. IX is another register similar to HL, but has slightly different properties, which you don't need to worry about right now. The value put into IX is always the start address of the block to be loaded, and the value put into DL is always the length of the block to be loaded. So the routine works exactly like loading and saving bytes in BASIC.

The only differences you should ever find are that the CALL is to a different address (#0556 in the ROM4 loading routine, so other CALLS are to subloaders in ROM4), the LD A,FF has some other value loaded into A instead, or is missing, or the SCF is missing. Basically, if you see DD 21 XX XX 11 XX XX in a protection system, you can be pretty sure it will be used to load something.

Now we know how a loaderless loader works, let's try and hack a real one. As an example, I've chosen Entinpod, which was on the May 1991 YS Covertape.

First of all, load up STE at any address (I'd suggest 37580, but you don't have to) and press Z to RELOAD in the BASIC. Then use STE to hit the basic, and you'll get the following:

```
10 NUMBER 0: RAUER 0: INK 7: CLEAR
24999: LOAD "" CODE
45000: RANDOMIZE USR 45000
```

Therefore, we should type in CLEAR 24999:LOAD "" CODE 45000 and reset the tape. When the OK message appears, stop the tape, load up your disassembler, and have a look at address 45000 (#F000). Here's a complete disassembly of the code you'll find there:

```
F000 21 00 40    LD XI,#4000
F003 11 01 40    LD DE,#4001
F006 01 FF 1A    LD BC,#1AFF
F009 36 00      LD HL,#000
F00B ED 04      LDIR
LDIR is a command we haven't met before, but it's
```

easy to understand. It's a copying routine. The start address of the block you want to copy is put in HL, the length of the block you want to copy is put in BC, and the start address of the area of memory you want to copy it to is put in DE. So, in the example above, the area of memory from #4000 is copied to #4001 for #1AFF bytes. In short, the routine is copying each address in this area of memory with the byte of the previous address.

The LD (HL),00 means that byte #00 is put into address #4000. Therefore, the whole of the memory from #4000 to #4AFF is filled with 0. In case you didn't know, the whole of the memory is the screen memory, so this bit of code is what makes the screen black when loading the game normally. If you want, you can change the byte at #F00B to #00 to give LD (HL),#000, so the contents of the screen memory are copied into the ROM4 (except that they aren't because the ROM4 is a read-only memory and you can't write anything into it.) This will stop the screen going black. You don't actually need to do it at all, but there we go. Commenting the disassembler:

```
F000 11 00 10    LD DE,#0000
F003 DD 21 00 00 LD IX,#0000
F006 0E FF      LD A,#FF
F009 37         SCF
F00B DD 54 05   CALL #0556
```

This portion of code loads in a block of code, with the start #4000 and the length #1B00.

```
F002 3E 00      LD A,#00
F004 D3 FE      OUT (#FE),A
```

This part of the code includes an OUT instruction, but OUT in machine code is usually identical to that in BASIC. So, this routine is basically the equivalent of OUT 254,0 in BASIC. If you don't know what that does, it sets the leader to black.

```
F006 11 00 40    LD DE,#4000
F009 21 00 00    LD HL,#0000
F00C 01 00 10    LD BC,#1000
F00F ED 04      LDIR
```

Then it starts LDIR, and it moves the code from #0000 to #4000 for #1B00 bytes. In other words, it copies the screen picture into the screen memory so you can see it.

```
F011 11 00 80    LD DE,#0080
F014 DD 21 04 1F LD IX,#407F
```

```
F016 37         SCF
F019 3E FF      LD A,#FF
```

```
F01B DD 54 05   CALL #0556
```

This part of code loads another block, with start #0080 and length #0600.

```
F01E 03 C7 01    JP #107
```

This part of the routine jumps to the game itself once it is loaded.

To hack the game, replace the C7 at F01E with C9. This will put a RET at the end of all the code, so the loader will return to BASIC when all loading has finished.

When the OK message comes up, you can hack the game as you've done with unprotected games. If you load STE into address #0000 (25536 decimal), and hack the game using a forwards trace, you'll eventually find that changing #F009 to 0 gives you infinite lives for the player. So to start the game, type RANDOMIZE USR 37001.

(BASIC is definitely not large)

To write a bank, we need to rewrite the BASIC loader, but make the modifications so we can put FORKs in

```
10 CLEAR 24999
20 LOAD "" CODE 65000
```

This comes directly from the BASIC loader and loads the small headless loader code

```
30 FORK 65004,201
```

This means that control will return to BASIC when all the headless code has been loaded

```
40 RANDOMIZE USR 65000
```

This starts off the headless loader

```
50 FORK 61100,0
```

This is the infinite loop FORK

```
60 RANDOMIZE USR 25000
```

This starts the game itself. Easy when you know how!

Now we know how a simple headless loader works, let's crack a tail-loader. There are loads of Y&S coverage games which have a variable loader, but I'm going to choose *Play the Mirador 1*, although you'll find that any Y&S game which uses this, black and magenta stripes when loading is almost identical

First of all, load up STK at address 58518 (you'll find out why later on), to find out what the BASIC loader has to say, using the same method as with *Ednapal*. It starts something like 3

```
1 BORDER 0:PAPER 0:CLCLR 64500:LOAD
"" CODE
2 RANDOMIZE USR 65146
30 CLCLR 64999:LOAD "ac" CODE:LOAD
```

"polydisk"

```
CODE:SAVE "10"SAVE "PICT" LOAD
1:SAVE "a"
```

```
CODE 65146,200:LOAD "screen"
SCREEN:RANDOMIZE
USR 65000
```

The BASIC starts at line 1. The commands should be obvious to you. Type **CLCLR 64999:LOAD "" CODE**, start the tape, and load in the first block of code. Stop the tape when the OK coverage comes up.

Now load your disassembler and examine the code at 65146, which is PETA hex.

```
PICT, P3 DT
```

DT is short for "double interrupt". What are interrupts, I hear you ask? Well, imagine you're watching TV when suddenly, someone says "We interrupt this program to give you an important news flash!" Then, after the news flash, the program you were watching resumes. Well, computer interrupts work in exactly the same way. In fact, every block of a second, a program is "interrupted" by the computer, which then checks to see if you're pressing any keys, and resumes the original program. The command DT simply stops this happening, and your program continues without any interruptions! This means the program can faster. However, you CANNOT get back to BASIC by a RET command, because the computer won't be checking the keyboard, and so it has effectively locked up. To get round this, you must execute the command EI (enable interrupts) first, so control can be resumed. Don't worry about doing this now, though

```
PIET 31 46 61 LD SP, 6140
```

This is a new instruction. SP (short for "stack

pointer") is a 16-bit register, like BC, DE and HL. However, it's far more important as for as BASIC is concerned in machine code, there are two ways of storing numbers. The first, using memory locations, we've already come across. However, there is another method by storing numbers on what is called a stack. Think of a stack as a big spine on which you can push pieces of paper with information on. Then, later on, you can take them off the stack and use them. If you think about it, if you put the numbers 1, 2 and 3 on the stack, in that order, you'll have to take 3 off first, then 2, then 1 (think about it). And it's the same in machine code. There are instructions which enable values of registers to be put on the stack, and which enable the value on the top of the stack to be taken off and put in a register.

The stack, like everything else, has to go somewhere in memory. The SP (stack pointer) register gives the address of the top of the stack. So LD SP,6140 will mean that the stack is to start at address 6140.

There is bad news if you want to return to BASIC, because the Spectrum's ROM program puts lots of information on the stack, so if you change the stack pointer, it's going to remove garbage when it takes all the values off what it thinks is the stack. And that, of course, will mean a crash. So the general rule is leave the stack pointer alone!

You can change the value of the stack pointer using CLAR from BASIC. If a machine code instruction has LD SP,XXXX, you can type **CLAR (XXXX)-1**. So here, we should **CLAR (6140)-1 = 613F**. Bear in mind that the value will have to be in decimal, which is 24927. So out from STK, **CLAR 24927**, and go back into it again. This will mean that later on we can do EI / RET as described above. Then you have to remove the LD SP instruction, which is most easily done by changing PIET to 21, so a code LD HL,6140. This is handy in this case. Carrying on through the code

```
PIET 00 21 60 40 LD HL,6100
PIET 11 00 1a LD DE,1804
PIET 00 97 FE CALL PIET
```

As you can probably see, this loads a headless block, the loading screen, in fact. However, you'll notice, as I said earlier, that some of the other commands (LD A,FF and SCF) are missing, and the CALL goes to a different address. This is because it's a tail-loader.

```
PIET 00 21 60 61 LD IX,6100
PIET 11 00 1a LD DE,1804
PIET 00 97 FE CALL PIET
```

This loads another block, start 6160 and length 134B. This means that all the memory from 6160 to FAAB will be overwritten. Fortunately, you loaded STK into address 58500, which is 6146 hex, so it won't be overwritten. Clever, eh? Meanwhile

```
PIET 30 04 JR NC,PIET
```

Something I haven't told you yet is that after a headless load, a JR NC will result in that JR if there is a tape loading error. So, if there was a tape loading error in loading this game, the JR NC,PIET would be executed (as the computer would try and reload the block)

```
PIET 00 60 61 JP 6180
```

This starts the main program running.

To crack the loader, therefore, FORK PIET4 with PB (for EI) and PIET5 with CB (for RET), along with the

modifications I've already told you about. Then RANDOMIZE USR 63146, and restart the tape (it is possible that you didn't stop the tape quickly enough the previous time, so you'll miss the turbulent loader, in which case wind back just before it). When the game has finished loading, an OK message will appear.

And that's it! Well, actually it's not, because the game is actually compressed, and needs to be unpacked first. Don't worry, because it's easy to hack. Go into STE again, and look at address 6140. You're looking for a JP instruction in the game, which is what is executed when the game is unpacked. You'll find it at 61A5. So POKE 61A5/8, 61A5/8 (for an EI / RST), and RANDOMIZE USR 34938. Wait a few seconds until BASIC returns. And there we are - you've cracked the loader!

You might be wondering how you can tell that the game is compressed. Well, there are two things. Firstly, the JP from the loader (6160) is to a very low address in the usable RAM (which only starts at 5800) that most noticeable, you won't be able to do a forwards trace or a backwards trace until you run the decompressor. In fact, in general, if you think you should be able to forwards trace or backwards trace a game for infinite hours, and haven't overloaded any important code with a disassembler, but nothing happens, it's worth looking at the start of the code executed and seeing if there's a JP a bit later on to a completely different address.

So now, perhaps, we should write a complete book for the game.

```
10 CLEAR 24527:LOAD "" CODE
```

This is from the BASIC loader and loads in the first block of code. We've changed the CLEAR though, so the

stack is in the right place.

```
20 POKE 48147, 33
```

This changes the LD SP,6368 into LD HL,6160 so the SP isn't tampered with.

```
30 POKE 63172,251:POKE 63173,301
```

This changes the JP 6160 to an EI / RST so control will return to our bank once the game has loaded.

```
40 RANDOMIZE USR 65146
```

This starts the game loading.

```
50 POKE 24993,251:POKE 24994,301
```

This changes the JP BCE to an EI / RST so control will return to our bank once the game has decompressed.

```
60 RANDOMIZE USR 24529
```

This starts the game decompress.

```
70 POKE 24451,0
```

This is the infinite lives POKE, which you'll find out when you do a forwards trace on the uncompressed game.

```
80 RANDOMIZE USR 34510
```

This is the start of the game.

Now that you've done that, why not crack another game which uses the same loader? They're usually all the same, except some of the JP addresses will be different. And then when you've done that, why not have a look at some other headless loaders - most games by Commodore are like that.

You will find, however, that you will sometimes have to overwrite some of the memory with your disassembler. There's no easy way to tell where it should be, I'm afraid, so you'll have to take your luck. If your forwards trace and backwards trace are both unsuccessful, try loading the disassembler elsewhere in memory, or look to see if the game is compressed.

## MacCom

by David Lasspe

The Principle breakthrough in the development of MacCom was finding the proper code for automating the modem initialization. That, we got from a disk load to a ready BBS, by just pressing "T" in the Main Menu! As received from Larry, you have to enter TERM mode and then enter both atx1 and atx0-1, waiting for an OK from the modem, that the strings were received properly.

Well, for that important better-pusher, there had to be a better way. So, we finally looked at the way Larry entered the telephone number, in order that the modem AutoDial the number. It was via an ATDT command: PRINT #3, "ATDT1208412972". The first two spaces are required, in order to guarantee that the last couple of numbers be received intact by the modem. We have to put some sort of time delay in between the two strings, because the 2668 is a little too fast for the ATARI modem even you hear this? PRINT #7, "atx1" - FAILURE CODE - " - PRINT #7, "atx0-1". The above might serve as a nice complement to the other developments in MacCom, such as assigning TERM mode and all local, backspacing work to THRMTer, leaving ONLY five entry points in MacCom! BTW we have succeeded in freeing up a grand total of 1578 bytes of RAM!

Here is the Main Menu for the extended version of

MacCom, which runs on the Systems Oriented Language Bulletin Board System. Since the 2668 is an memory-bound, we have been working our brains for the last (and first) two years of operation for neat ways of acquiring memory. Well, we first broke out all the local operations into a "terminal" routine", THRMTer. And, we had decided to drop terminal mode entirely from the BBS software, MacCom. We still access terminal mode in MacCom, but Only by the caller's choosing talk mode in the BBS main menu. Otherwise, we need terminal mode only to initialize the modem with "atdt" and "atx0-1".

The Breakthrough came yesterday, when we figured out how to send those modem commands as part of an initialization string, by talking to the modem on channel 7. So, two years of operation have left us with the need for only five entry points for MacCom. We backup MacCom to the disk, on the current drive, by pressing "u" in MENU mode. We SEND the initialization string to the modem, LOAD the general information message base, and ENTER BBS mode, by pressing "T" in MENU mode. We hang up the phone, when necessary, by pressing "h" in MENU mode. We CAtalog the current drive, by pressing "c" in MENU mode. We go back to RAMdisk, by pressing "v" in MENU mode. Oh, yes, we select a current drive by

pressing "0", "1", "2", "3", or "4", while in MIDI mode Display is still toggled, when in TALK mode, by pressing CAP and "7".

MacCom uses 1200 baud at 8 data bits, 1 stop bit, and No parity all the time, when receiving calls to SOL-BBS. The parameters are selectable in THERMax only. We have saved a lot of memory, there! The buffer works in THERMax only, in order to upload long files by the caller.

Lastly, LINK is still ON or OFF, according to a connection is still in progress, or not, respectively.

## MIDI MENU

Here is the screen image of the AUTOSTART file on RAMdisk. This Menu Menu takes 22 lines, as shown. On line #24 is a request "press 0 - 4". Now, we tried to store it in a screen string, which is easy to print on the large printer, but line #1 is never saved in my machine, and line #24 is not saved, either. So, we resorted to the small printer, which still prints only the first 22 lines.

- ✦ Option #0 gives the CAtalog of the disk in any of the drives, from 0 to 4.
- ✦ Option #1 LOADs the AUTOSTART file of a disk in any of the drives, from 0 to 4.
- ✦ Option #2 LOADs the autonomous version of MacCom-BBS software.
- ✦ Option #3 LOADs the docked version of MacCom-BBS software.
- ✦ Option #4 LOADs the up-linked version of MacCom-

terminal software.

- ✦ Option #5 LOADs the timed version of MacCom terminal software.
- ✦ Option #6 sends messages for a called BBS. The text presented contains no punctuation.
- ✦ Option #7 LOADs an advanced, Larkem-compatible version of MISCRAFT.
- ✦ Option #8 LOADs DFORM by Jack Dobary.
- ✦ Option #9 is a disk copy routine, optimized for speed.
- ✦ Option #a LOADs a routine, the moving the contents of RAMdisk both to and from an arbitrary disk drive, from 0 to 4.
- ✦ Option #b LOADs software, for rebuilding a disk's CAtalog from the disk's contents.
- ✦ Option #c transfers the name of a disk on one drive, to a disk on another drive, from 0 to 4.
- ✦ Option #d copies the name of a disk, OR just changes it.
- ✦ Option #e both reads and sets the online clock.
- ✦ Option #f configures ASCIIhex. It also READs the disk.
- ✦ Option #g SENDs a fax via ASCIIhex.

David E. Luzzov Space

SOL-BBS @ 210-442-0788 (data) 210-442-1672 (voice)

email:de@earthlink.net (ama.)

2599 N. Jordan DR.

Tucson, AZ 85745-3103

## RMG List — The Inventory Intended to be Shipped to J. Shepard Will be Updated in the Next Issue

- |                                                       |                                                          |
|-------------------------------------------------------|----------------------------------------------------------|
| 1 Computer-TS-2868 (2068)(a/w)                        | 1 Chambers-M3 DOS To LKDOS ASCII File Converter (2068)   |
| 1 Computer-TS-2868 Complete (Disk)(a/w)(2068)         | 1 Egon Power-DU-S Utility Disk (FS)(Larkem)(2068)        |
| 1 Computer-TS-2868 Computer Only As-is (a/w)          | 1 Marcel-DU-S Users Manual On Disk (Lidos)(2068)         |
| 1 Power Supply-2868 13v (Disk)(2068)(a/w)             | 1 Bench-Tags To LKDOS Move/Mover W/Builder Reader (2068) |
| 1 Power Supply-6 Volt TS-1000/1200 (a/w)(1468)        | 1 Dobary-Lidos Pd Utility Disk (2068)(a/w)(Pd)           |
| 1 Cable-Casemat/Computer Set (1000)(2068)(a/w)        | 1 Dobary-Smartwatch Software/Docs (2068)(a/w)            |
| 1 Cable-Moscow-TVC Computer (1000)(2068)(a/w)         | 1 Dobary-2068 BDM/Spectrum Emulator Kit/Dn-4-Year (2068) |
| 1 TS-1016 16K RAM Pak (1000)(a/w)                     | 1 Printer-Dobary-Dobary Superdriver W/Typing (2068)      |
| 13 Magic Bridge-16K RAM Packs (1000/1300)(a/w)        | 1 Micropt Wp V3 30Dobary - Disk (2068)(a/w)              |
| 1 Sanitronics-16K RAM Pak (Disk)(a/w)(1000/1300)      | 1 Basic Text Kit (2068)(a/w)                             |
| 1 Microtech 16K RAM Pak (1000)(a/w)                   | 1 Close (2068)(a/w)                                      |
| 1 Larkem-Macrom Text/BBS Package (2068)(a/w)          | 1 E-Z Key-Up/Down (2068)(a/w)                            |
| 1 Larkem-Sequential Filmg (2068)(a/w)                 | 1 SlideShow 2068-SlideShow Plus For 2068 (a/w)(2068)     |
| 1 Larkem-LKDOS Version 1 EPROM (LK/NEC/DU/BLAM/Clon)  | 1 S&K-The Encoder (2068)(a/w)                            |
| 2 Madon-Byte-Batch MD-5H Assembled (2068)(a/w)        | 1 S&K Express (2068)(FD-6)(a/w)                          |
| 7 Madon-Byte-Batch Spectrum V3 3 (2068)(a/w)          | 1 S&K-Andromeda 1 (2068)(a/w)                            |
| 1 Cable-Serial-2068/Moscow (2068)(a/w)                | 1 ZIP Computer (a/w)(2068)                               |
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## Terms That All Potential Internet Users Should Know

With the swift, progressive use of the Internet over the last several years, terms such as the World Wide Web, e-mail, go-live and modems are being used more frequently in our society.

You may want to become more familiar with common Internet language.

The following is a partial listing of terms that can help you to achieve Internet literacy.

**Address**—A unique string of text which identifies the location of a Web page on the Internet. Also known as the Uniform Resource Locator (URL). If you have E-mail, a unique address is also assigned.

**Bookmark**—A feature of Netscape Navigator which enables you to mark Web pages for future use and easy access.

**Chat Rooms**—With the appropriate software, a permanent connection is made inside a chat room (group) and everyone in that room can type messages and questions back and forth to one other. Everyone in the chat room can see what everyone else is writing because it shows up on each person's computer screen. Chat rooms often have themes where people with similar interests can talk. Communication is in real time.

**Download**—Through the computer, COPY files from another computer to your computer's hard drive or disk. If you have the appropriate software you can download any file.

**(E-mail) Electronic mail**—A system used to send and receive messages electronically. A message is posted until the recipient accesses and deletes it.

**(FAQ) Frequently Asked Questions**—A file containing responses to commonly asked questions that everyone else is tired of answering.

**(FTP) File Transfer Protocol**—A method of moving files across the Net.

**(Gateway)**—A computer-based program that routes between different computer networks in search of information.

**Home Page**—This is the page which comes up automatically when a URL address is entered. It's the introductory page to your Web site.

**(HTML) Hypertext Markup Language**—The stuff that World Wide Web documents are made of.

**(HTTP) Hypertext Transport Protocol**—A communication standard which enables every computer accessing the Internet or talking the same language when sending and receiving Web pages.

**Internet**—A collection of networks that connect computers all over the world together using phone lines,

satellite cables, fiber optic cables, satellites and other means of telecommunication media.

**Links**—Text that may appear highlighted or underlined and may also be a graphic (hyperlink) that enable you to open related Web pages by clicking them with your mouse.

**Lookup**—A text interface used to view documents/files on the World Wide Web.

**Modem**—Stands for modulator/demodulator. A device that changes analog to digital data which the computer can understand. Modems make it possible to use a phone line for computers to talk to other computers.

**Multimedia**—A collection of technologies including animated pictures, video and sound.

**Net Search**—Conducting a search for information on the Internet through directories such as Yahoo or other search engines.

**Newbie**—A new Internet user; often considered flummoxed by unsympathetic Net vets.

**Online**—Connection giving access to the Internet through a computer with the appropriate software, modem and a Web provider account.

**(POP) Post Office Protocol**—Refers to local phone numbers maintained by regional or national Internet access providers.

**(PPP) Point-to-Point Protocol**—A type of access account that gives virtually direct access to the Net.

**Search Engine**—Used to do a net search and typically gives you more listings than a directory. It searches keywords you enter into the search lists. AltaVista, Crawler, Excite and Infolink are all search engines.

**Spamming**—Broadcasting a single message many newsgroups or E-mail addresses.

**Surfing**—A net dicker or dicker.

**(TCP/IP) Transmission Control Protocol/Internet Protocol**—A series of rules computers must obey in order to communicate across the Net.

**Telnet**—Communication protocol that lets you log onto another computer from a far distance.

**Web Finkdang**—Someone who assumes that the search engines and directories know you have a Web site. Also, making sure your URL address is publicized in places such as your business cards, flyers, and broadcast advertisements.

**Web Provider**—Also called an Internet Service Provider (ISP). A local (proxy) or national company which charges a fee to establish Internet communications through phone lines using routers and servers.

**Web Server**—A computer that takes orders from



Internet users and responds appropriately. It makes Web pages available to World Wide Web users. A server process URL and itself address requests.

**Web Site**—A series of Web pages linked together that become someone's online presence on the Internet.

**Newsgroups**—A collection of Internet users meeting electronically to discuss a topic. Messages can be posted on an electronic bulletin board accessible to all those in the newsgroup. Usenet is a system of more than 7,000 newsgroups.

**(UNIX)**—A complex, powerful and extremely scary operating system used extensively on networked machines. First created by Newbrix.

**(URL)** Uniform Resource Locator—A unique string of text that identifies the location of a Web page on the Internet. The first four letters in such URL is HTTP.

**Web Browser**—Computer program that enables you to use the WWW to find, load and view Web pages. Web

browsers offer easy-to-use point and click environments for quickly accessing information. Examples are Mosaic, Netscape Navigator and Internet Explorer.

**Web Document**—Also called a Web page, a specifically formatted file designed for use on the Internet that enables you to display information to anyone using the Internet. Web pages typically include text, graphics, links and sometimes sound and video clips.

**Web Master**—Someone who creates, maintains and administers the content of a Web site making sure it operates correctly on the software and server side.

**(WWW)** World Wide Web—Also referred to as The Web and WC. A vast series of document documents called Web pages that are linked together over the Internet. No single entity owns the Web. The Internet and WWW are also used interchangeably.

Or a sub-network for net-heads who cannot live by plain printed text alone.

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Supporting All QL Programmers

Timothy Swenson, Editor

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### English Office

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### Editor

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